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Meeting Minutes Transmittal/Approval  
Unit Manager's Meeting: Remedial Action and Waste Disposal Unit/Source Operable Unit  
3350 George Washington Way, Room 1B45, Richland, Washington  
July 18, 1996

FROM/APPROVAL: *Nancy Werdel/Glenn Goldberg* Date 9/19/96  
Nancy Werdel/Glenn Goldberg, 100 Area Unit Managers, RL (H0-12)

APPROVAL: *Keith R. Holliday* Date 9-19-96  
Wayne Soper/Keith Holliday, 100 Aggregate Area Unit Manager, Ecology (B5-18)

APPROVAL: *Dennis Faulk/Kevin Oates* Date 10-1-96  
Dennis Faulk/Kevin Oates, 100 Aggregate Area Unit Managers, EPA (B5-01)

APPROVAL: *Bryan Foley* Date 10-2-96  
Bryan Foley, 200 Area Unit Manager, RL (H0-12)

APPROVAL: *Gary Freedman/Norman Hepner* Date 10/1/96  
Gary Freedman/Norman Hepner, 200 Aggregate Area Unit Managers Ecology (B5-18)

APPROVAL: *David R. Einan/Paul Beaver* Date 1 Oct 96  
David Einan/Paul Beaver, 200 Area Aggregate Area Unit Managers, EPA (B5-01)

APPROVAL: *Robert G. McLeod* Date Sept 30, 1996  
Robert G. McLeod, 300 Area Unit Manager, RL (H0-12)

APPROVAL: *Jeanne Wallace* Date 10/8/96  
Jeanne Wallace, 300 Area Aggregated Area Unit Manager WA Dept of Ecology (B5-18)

APPROVAL: *David R. Einan* Date 1 Oct 96  
David R. Einan, 300 Area Aggregated Unit Manager, EPA (B5-01)

APPROVAL: *Ted A. Wooley* Date 10/1/96  
Ted A. Wooley, 300 Area Process Trenches Subproject Manager

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

Attachment #1 - Agenda  
Attachment #2 - Attendance Record  
Attachment #3 - Meeting Minutes  
Attachment #4 - Status Package  
Attachment #5 - 299-UP-2 OU History  
Attachment #6 - TWRS Privatization Phase I

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Prepared by:



Gary Gesell/Tamen Lundquist (H0-17)

Date

10/9/96

Concurrence by:



Vern Dronen, BHI Remedial Action and Waste Disposal Project Manager  
(H0-17)

Date

10/9/96

**JULY 1996 UMM AGENDA****1:00 p.m. 300 Area****300-FF-1**

- Record of Decision
- Remedial Design Status
- SAP DQO Meetings
- RDR/RAWP Status
- RA Procurement
- Cultural Resource Issues

**300-FF-2**

- 618-10 Burial Ground and 316-4 Crib Investigation

**300-FF-5**

- Tri-Party Agreement Change Package Status

**2:00 p.m. 100 Areas**

- Status of IDW Disposal
- Status of Waste Site Reclassification Process
- D-Ponds Sediment Removal
- Confirmatory Sampling Effort for Potential "No Action" Sites
- 100-IU-1 Bioremediation Data
- Future Use of Soil Wash Treatability Test Equipment

**3:00 p.m. 200 Areas**

- 200-UP-2 Focused Feasibility Study and Proposed Plan Finalization
- Privatization Efforts Potentially Impacting 216-A-29 TSD

Remedial Action and Waste Disposal Unit Manager's Meeting  
 Official Attendance Record  
 July 18, 1995

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PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Richard A. Carlson	ERC	300 Area	372-9623
Gary Gesell	ERC	RAWID Lead Editor	372-9067
Dave Einan	EPA	300 Area P.M.	376-3883
Ted Worley	Ecology	300 APT Sub Pm	736-3012
Phil [unclear]	Ecology	11 PM	736-2029
Larry Gaddis	EPA	P M	376-9884
Jeanne Wallace	Ecology	300 Area	736-3019
Bob McLeod	DOE	300 Area	372-0096
Charlie Johnson	ERC	300 AREA	372-9603
William [unclear]	ERC	100 Area	372-9000
Glenn Goldberg	DOE	100 AREA	376-9552
Chuck Hedel	ERC	100 Area	372-9637
Keith Holliday	Ecology	D Area	736-3036
Glen VanSickle	BHI	BC RA	373-6425
Shi Mohau	Ecology	U Plant Proj. Mgr.	736-5704
JOAN K. BARTZ	ECOLOGY	200-UP-2 UNIT MANAGER	
Michael J Galgoul	ITH	ITH Proj Mgr	372-9274
Greg Mitchem	BHI	200 Area Task Lead	372-9632
Bryan L. Foley	DOE	200 Area PM	376-7087

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**Unit Managers' Meeting Minutes  
July 18, 1996**

**100 AREAS**

The June 1996 UMM minutes were signed.

**IDW Status**

- Plans are in place to send Categories 2, 3, and 4 IDW to ERDF.
- Bulk soil from 116-F-4 will be sent to ERDF starting August 5, 1996. The ERDF ESD is anticipated to be signed by early August 1996. Ecology expressed concerns that the 116-F-4 liner may have outlived its life expectancy last August (1995).
- Approximately 400 Category 3 and 4 containers can be shipped after the ERDF ESD is signed.
- Transportation of Category 1 IDW to ERDF was completed last week.
- The balance of IDW is scheduled to be shipped to ERDF by September 30, 1996.
- A Tri-Party Agreement milestone is in place for disposal of BL/DR/HR-1 IDW by the end of fiscal year (FY) 1996. All IDW from the 37 waste sites in the interim action ROD must be disposed by this time.

**Waste Site Reclassification Process**

- RCRA-related concerns need to be addressed and resolved. A meeting is tentatively scheduled for the middle of next week.
- Fifty packages beginning BHI review (July 18, 1996) have been prepared per the Tri-Party Agreement Handbook MG-08. These sites have been labeled as "reject" or "no-action" sites. RL will review these sites and will submit packages to the regulators by the end of August 1996.
- Jeanne Wallace and Larry Gadbois suggested that a 1-page fact sheet of the WSR Project be presented to the ER committee of the HAB. RL agreed that this should be done.

**D-Ponds Sediment Removal**

Will be restarted August 12, 1996, into low-level waste burial ground. WHC approval was needed for 20 trucks of waste/day being shipped to ERDF.

**100-D Ponds Sampling and Analysis Plan (SAP)**

Most of Ecology's comments were incorporated into the document. Several comments were discussed at a July 17, 1996, comment resolution meeting. Following resolution of Ecology action items resulting from the meeting, the SAP will be completed in time to support remediation.

**Confirmatory Sampling**

Discussed the remaining sites to collect confirmation samples. Use the DQO process to agree on the amount of samples to be analyzed. Sampling will start beginning of FY 1997 (October 1).

**100-IU-1 Bioremediated Soil**

Dennis Faulk's earlier request to provide more information (i.e., lab data sheets and field screening) was answered by transmittal of this information to EPA last week.

**IU-2 and IU-6**

RL requested a letter from EPA that submittal of Draft A of IU-2/6 Focus Package meets Tri-Party Agreement Milestone M-13-00J to submit planning documents by December 31, 1996. The EPA agreed to send a letter.

**Future Use of Soil Washing Treatability Test Equipment**

If regulators do not envision future use of 100-DR soil washing equipment, RL/ERC would like to dispose of it because (1) carrying costs are high and (2) others want to use the facility equipment for other needs. Ecology indicated that, if there are any expected soil in 37 sites from the ROD to be treated by soil washing, then it would be advisable to retain the equipment. G. Van Sickle responded that evaluations of cost-effectiveness of soil washing do not justify keeping it; also, equipment is suitable only for small volumes. Item will be carried through to the next UMM meeting.

**200 AREAS****200-UP-2/216-U-12 Crib**

This was the first Unit Managers' Meeting since Joan Bartz became the Ecology 200-UP-2 Unit Manager in February. The finalization of the 200-UP-2 Focused Feasibility Study (FFS) and Proposed Plan was discussed. RL pointed out that they are following the RCRA/CERCLA integration strategy outlined in the Limited Field Investigation report; RL is preparing a letter to be sent to Ecology stating this and stating that the remaining activities for UP-2 will be rolled over into FY 1997, but no additional funding or activities are being planned. RL and Ecology recognized the concern that EPA has stated that they will not be issuing a ROD for 200-UP-2. RL thought that the ROD had to be issued to close the RCRA unit (216-U-12 Crib). Ecology stated that a ROD has no effect on the closure of a RCRA unit. Ecology has stated that the Permit Modification schedule will not be changed. Ecology reminded RL that a condition of the 200 Area Strategy development is that the Tri-Party Agreement milestones through the year 2000 will be honored. The closure of the 216-U-12 Crib has such a milestone. RL stated their concern that we are following the current schedule for the sake of the Permit Modification schedule and not due to any risk of human health and environmental need for an interim action. Ecology is willing to entertain the following three options:

1. The FFS and Proposed Plan information needs to be submitted for public review; however, issuing the Proposed Plan could create confusion and, thus, a separate document would need to be submitted to the public (an option is making the Proposed Plan an addendum to the FFS and sending the FFS out for public review).
2. Pull all the pieces of the Closure/Post Closure Plan out of the documentation and create a standalone Closure/Post Closure Plan.
3. Postponing the Permit Modification schedule by 1 year to allow for the Closure/Post Closure Plan to be developed.

Ecology also stated that for all options, RL must prove that there is no impact to the environment. Verification sampling is required to support closure. Analogous data are considered the same as historical information and, thus, can be used to some degree but not in place of verification sampling data from the specific RCRA unit. RL was concerned about this statement and the limited options Ecology is willing to consider and requested a meeting to be held with Moses Jaraysi included.

**200-BP-11**

To support the privatization work associated with the TWRS vitrification activities, there is a need to put in a road and a pipe crossing across the 216-A-29 Ditch RCRA TSD. The Ecology Unit Manager (Norm Hepner) was not at the meeting; therefore, Joan Bartz will take the information to Norm. No decisions or detailed discussions could be held at this time.

**300 AREA**

The June 1996 UMM minutes were signed.

**300-FF-1 OU**

- The ROD was signed on July 17, 1996.
- Remedial Design - The review comments for the 90% design package are due today. A meeting with WASTREN is scheduled for July 19, 1996, to resolve comments.
- A management briefing meeting for the RD is tentatively planned for July 24, 1996, to BHI senior management (to obtain buy-in).
- The 100% design will be submitted on July 26, 1996; the RFP is planned to be issued on July 29, 1996.
- Bob McLeod questioned how the burial grounds will be handled by the subcontractor.

**Ecology Comments**

1. Project Design Basis: Need to revise document based on the comments received. There is concern regarding the statement on use of 100 Area regulatory interpretations and precedents and DQO/SAP update. This issue was not closed in this meeting.
2. WIDS will reference Zimmerman and Kossick. Mr. Wooley explained the issue in more detail and it was agreed that this comment would be incorporated.
3. SOW - The issue is with Ecology approval of a project Waste Control Plan. It was noted that EPA and Ecology will review and approve the RDR/RAWP and that adequate detail would need to be in that document. The EPA will research this before making a decision.
4. UST - Ecology is requiring the decon tank to be a regulated tank (stores decontamination water) per the UST regulations.

**Remedial Action Procurement**

- The schedule to issue the RFP for bid is on July 29, 1996.
- An ERC senior management briefing on the RFP package is scheduled for July 24, 1996. EPA, Ecology, and DOE are invited to the briefing.

**Remedial Design Report/Remedial Action Work Plan**

- Do not change the ARAR requirements; the ROD set the ARARs, per Dave Einan.
- It is important to release/publish the SAP this FY.

**Cultural Resources**

DOE and ERC met with the tribes on July 18, 1996. The tribes are requesting to be present during site setup excavation activities and have concerns about excavation in general in the 300 Area.

**300-FF-2 OU**

618-4 Burial Ground and 316-4 Crib Investigation Strategy - BHI is obtaining cost for remediation; BHI is planning for completion by the end of August 1996.

**300-FF-5 OU**

- The Tri-Party Agreement Change Package, regarding the 300-FF-5 OU boundary definition administrative clarification, has been signed.
- A DQO meeting to clarify Point of Compliance wells needs to occur soon to finish the O&M Plan this FY.

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STATUS PACKAGE

UNIT MANAGERS' MEETING - JULY 1996

SOURCE OPERABLE UNITS

100-B/C, 100-K, 100-D, 100-H, 100-F

200 AREAS

300 AREA

prepared by

DOE-RL

## 100 AREAS

### Focused Feasibility Studies and Proposed Plans

100 Area Remaining Sites - An Explanation of Significant Difference (ESD) has been prepared to add 34 radioactive liquid waste disposal sites to the existing 100 Areas Record of Decision (ROD). It is currently undergoing RL review. A second ESD will be prepared later this year to address nonradioactive liquid waste disposal sites. Once approved, these documents will allow remedial design and remedial action to proceed for all reactor area liquid waste sites.

Potential "no-action" Waste Sites - Preparation is underway for a "Confirmatory Sampling Effort" (CSE) for the waste sites the project team considered "candidates for no action pending confirmatory sampling." These are sites where there is evidence that waste (radioactive and/or chemical) was released but there is also evidence that it has been clean up (D&D or other programs) or that it has likely attenuated naturally and no remedial action may be required. There are currently 31 candidate waste sites that ERC believes meet these criteria in the 100 Area. We have assumed that the CSE task will require a DQO/SAP cycle to ensure that our sampling and analysis efforts meet with regulatory agency approval. Arrangements are currently being made to initiate the DQO process.

100-IU-1/100-IU-3/100-IU-4/100-IU-5 PP - Following the signing of the "no action" ROD in February 1996, an action remains to close out the bioremediation of diesel contaminated soil from 100-IU-1 that is stockpiled at 100-B/C. A site visit was made by RL, EPA, and the Environmental Restoration Contractor (ERC) on May 6, 1996, to check the stockpile for evidence of organic vapors; no vapors were detected. DOE has since submitted an information package to EPA and Ecology documenting data from the site visit and previous data which indicates adequate bioremediation has occurred. DOE has proposed that no further action is necessary and use of the soil should not be restricted.

100-IU-2 and 100-IU-6 - A Draft Redline Rev. 0 Focus Package documenting the proposed dispositions of the sites was submitted by RL to EPA and Ecology on March 5, 1996. The joint EPA/Ecology letter on the *100 Area Record of Decision Strategy* recommended that the 100-IU-2 and 100-IU-6 Operable Units (OU) be addressed through Washington State regulations (e.g., solid waste regulations) rather than the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA). The advantages and disadvantages of the regulators' proposal remain to be discussed. Some issues to consider include CERCLA documentation completed to date and a December 31, 1996, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) milestone for the submittal of "planning documents." DOE is now considering making some minor revisions to the document, consistent with the Waste Site Reclassification process (discussed below).

100-KR-1/100-KR-2/100-FR-1/100-FR-2/100-BC-2 - Work has been suspended on focus feasibility studies (FFS) and proposed plans (PP) for these OUs since receiving a letter from EPA (October 20, 1995) requesting RL to stop work on these documents. The request to stop work was made in anticipation of reaching a Tri-Party Agreement in the near future to address remaining waste sites in the 100 Areas on a 100-Area-wide basis, rather than on an OU-specific

basis. Liquid waste disposal sites located in these OUs have been included in the ESDs (discussed above).

100-DR-2/100-HR-2 - Work has been suspended on FFSs and PPs for these OUs since receiving a letter from Ecology (November 29, 1995) requesting RL to stop work on these documents. The request to stop work was made in anticipation of reaching a Tri-Party Agreement in the near future to address remaining waste sites in the 100 Areas on a 100-Area-wide basis, rather than on an OU-specific basis. Liquid waste disposal sites located in these OUs have been included in the ESDs (discussed above).

### **Waste Site Reclassification Project**

In anticipating approval of the waste site reclassification process (Procedure No. TPA-MG-08) by the Tri-Parties, RL has prepared documentation for waste sites that have high potential for reclassification from "accepted" to "rejected" or "no action" in the WIDS data base. The information packages and associated approval forms will be reviewed by DOE in late-July and are scheduled to be submitted to the regulators for their review by mid-August. It is anticipated that reclassification packages for approximately 50 sites will be included in the initial submittal.

### **100-D Ponds**

Planning has been completed to remove contaminated sediments from 100-D Ponds. It is now anticipated that the field activities will commence in early August. Cleanup criteria were established in a Data Quality Objective (DQO) Final Report (BHI-00773). The removed sediments will be disposed of in the low-level waste burial grounds.

### **Investigation Derived Waste (IDW)**

A plan and schedule for disposal of source area IDW in the Environmental Restoration Disposal Facility (ERDF) has been developed. Initial shipments of IDW associated with the 100-HR-1, 100-DR-1, and 100-BC-1 ROD commenced in early July, with the opening of ERDF. Other 100 Areas IDW will be shipped to ERDF upon approval of the ERDF ESD. A few containers of IDW will need to be treated to meet ERDF Waste Acceptance Criteria before shipment. Separate treatment plans and schedules are being developed for this IDW.

### **100 B/C**

100-BC-1 ERA - The *100-B/C Demonstration Project Final Report* was issued in March 1996. The 116-B-4 French Drain was backfilled to grade with clean material on April 5, 1996. This action was necessary to prevent sloughing of the side walls and cave-in. The verification packages for 116-B-4 and 116-B-5 have been revised to be consistent with the *Remedial Design Report/Remedial Action Work Plan*. The revised packages have been submitted to EPA for concurrence.

**B/C Area**

Remedial Design - Detailed design is complete for all sites in 100-BC-1 (116-B-1, 116-B-11, 116-B-13, 116-B-14, 116-C-1, 116-C-5, and the B/C north pipelines), two sites in 100-DR-1 (116-D-1A, 116-D-1B), and one site in 100-HR-1 (116-H-1). The RDR/RAWP and the *Sampling and Analysis Plan* were approved by Ecology and EPA, with several comments, on June 26, 1996.

Remedial Action - Mobilization and site set-up began in June 1996. Excavation of the 116-B-4 waste pile began on June 28, 1996, and the first waste shipments to ERDF occurred on July 1, 1996. Full-scale operations are expected by July 15, 1996.

**200 AREAS****200-UP-2 Operable Unit**

200-UP-2 FFS - The 200-UP-2 FFS and Proposed Plan are currently undergoing regulatory review. The Ecology-requested 30 working-day extension to complete their review of the FFS has expired without comments being received. The scheduled review period for the Proposed Plan has also expired. A new schedule needs to be developed for this work.

**200 Areas Strategy**

Draft A of the 200 Areas Strategy Document was issued to RL on August 2, 1996. The Technical Document is being developed based on the agreed-upon Annotated Outline.

**200-BP-11 Operable Unit**

Planning to support the TWRS privatization project egress route and transfer line routing across the 216-A-29 Ditch has begun. This waste site is a TSD, and requirements for this activity need to be developed jointly between Ecology, ERC, and Westinghouse/Kaiser.

**200-BP-1 Operable Unit**

The prototype barrier testing program is continuing. Required animal and vegetation monitoring is being performed along with irrigating to support water balance testing.

**300 AREA****300-FF-1 Operable Unit**

Record of Decision - The ERC and DOE-RL have provided additional comments to EPA on the ROD final wording.

Remedial Design - The remedial design subcontractor submitted the 90% design package on July 3, 1996. Twelve DQO sessions have been held to make decisions regarding sampling and analysis for the 300-FF-1 remedial action. Most of this month's effort was focused on the site closure and in process sampling decisions. The meeting minutes were issued for review by DOE, EPA, and Ecology.

**300-FF-2 Operable Unit**

Limited Field Investigation (LFI) Report - Comments from the ERC review of the 300-FF-2 LFI report were dispositioned and incorporated. The Decisional Draft of the report was provided to DOE for initiation of the DOE review cycle on June 17, two weeks ahead of schedule.

Groundwater Sampling - Based on the sampling results at the 618-10 Burial Ground and 316-4 Crib, a strategy for the investigation of the uranium/hydrocarbon plume detected at the 699-S6-E4A well was presented to DOE and EPA for discussion. Based on those discussions, a new FY 1996 workscope, which includes remediation/upgrading well 699-S6-E4A and subsequent sampling, was verbally approved by DOE and EPA. Preparation of necessary paperwork (i.e., health and safety plans, revision to sampling plans, etc.) has been initiated.

**300-FF-5 Operable Unit**

Operations and Maintenance Plan - The Operation and Maintenance plan is essentially complete, as stated last month. However, there is a need to reopen the DQO and have one more session to finalize discussions regarding point of compliance monitoring details. This will occur after the ROD is approved.

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**200-UP-2 OPERABLE UNIT  
BRIEF HISTORY OF DOCUMENTATION**

- Work Plan prepared; Rev. 0 issued June 1993, Approved by Ecology August 1994
- TPA Change Package required integration of CERCLA and RCRA; August 1994
- LFI investigation conducted: 1993 to 1994
- LFI report prepared including CERCLA/RCRA integration roadmap; Rev. 0 issued November 1995
- FFS prepared including revised CERCLA/RCRA integration roadmap; Draft A issued April, 1996
- Proposed Plan prepared; Draft A issued April 1996

**CURRENT STATUS**

- LFI issued as Rev. 0
- FFS and Proposed Plan are being reviewed by DOE and regulators; DOE comments have been incorporated
- Remaining TPA Milestone M-15-15E requires final revisions of LFI, FFS, and Proposed Plan by 12/31/96
- Permit modification documentation due by 9/30 to support next modification

**REMAINING WORK SCOPE**

- Need to finalize FFS and Proposed Plan to support TPA Milestone and preparation of ROD
- Need to prepare documentation for permit modification for 216-U-12
- Need to prepare administrative record for public review

**OPTIONS FOR FUTURE**

- Continue on path for RI/FS ROD with integrated closure/postclosure plan and permit modification
  - Will require finalization of FFS and Proposed Plan to support permit modification schedule
  
- Modify existing plan of action from the current integrated CERCLA/RCRA plan to some other method to be developed and negotiated
  - Will require change to current TPA Milestones

## TWRS PRIVATIZATION PHASE I

### BENEFITS OF A SNOWS CREEK CROSSING

- ENABLES USE OF THE MOST DIRECT NORTHERN ROUTE FOR SITE ACCESS
- PROVIDES A SECOND ROAD ACCESS TO THE SITE
- NORTH EGRESS AVOIDS HIGHLY CONGESTED AP AND AW TANK FARM AREA (SAFETY ISSUE)
- NORTHERN PRIVATIZATION CONTRACTOR HAS ACCESS TO SITE WITHOUT CROSSING THROUGH SOUTHERN CONTRACTORS SITE (ALLOWS ACCESS OPTIONS DURING CONSTRUCTION ACTIVITIES)
- DEPTH OF CANYON PROVIDES SEPARATION OF UTILITIES FROM CANYON INVERT
- RAW AND POTABLE WATER LINES WILL NOT CROSS ANY EXISTING PROCESS WASTE LINES
- ENABLES PROVISION OF A FULL LOOP FIRE SUPPRESSION WATER DISTRIBUTION SYSTEM
- PROVIDES A UNCONGESTED ROUTE FOR UNDERGROUND UTILITIES (POTABLE WATER, RAW WATER, TWO LIQUID EFFLUENTS)
- REDUCES NUMBER OF UTILITIES ROUTED THROUGH NARROW CONGESTED SOUTHERN CORRIDORS FROM EIGHT TO FOUR (RAW WATER, TWO LOW LEVEL WASTE, HIGH LEVEL WASTE)
- AVOIDS PLACING CLEAN UTILITIES IN CLOSE PROXIMITY OF WASTE TRANSFER LINES (AT LEAST 20 FEET OF HORIZONTAL SEPARATION)
- PROVIDES FOR OPTIMUM ROUTING OF LIQUID EFFLUENT LINES FROM PRIVATIZATION SITES TO DISPOSAL SITES TO THE NORTH (TEDF).

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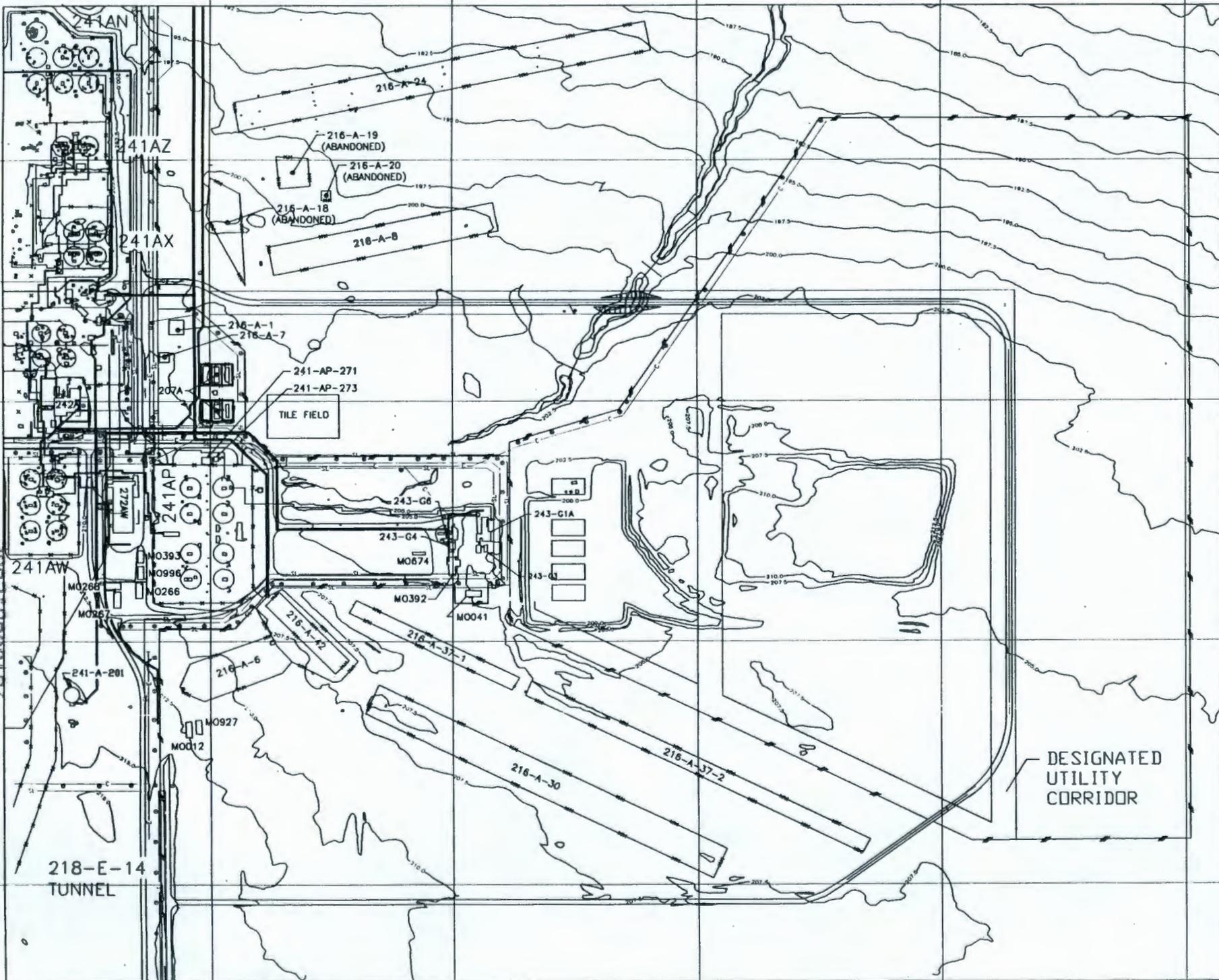
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TILE FIELD

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216-A-20  
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216-A-18  
(ABANDONED)

216-A-1  
216-A-7

241-AP-271  
241-AP-273

243-G6

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216-A-37-1

216-A-30

216-A-37-2

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## Environmental Sites Database General Summary Report

Site Code: 216-A-29

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Site Names: 216-A-29, Snow's Canyon; PUREX Chemical Sewer (CSL)

Site Type: Ditch

Responsible Organization: B

Site Description: The ditch originated 525 ft southeast of the 241-A Tank Farm, outside of the 200 East Area perimeter fence. The unit emptied into 216-B-3-3 Ditch which terminated at 216-B-3 Pond. The ditch was backfilled and surface stabilized in 1991. 02/02/96

Status: Inactive

Start Date: November 1955

End Date: September, 1991

Operable Unit: 200-BP-11 01/29/96

Hanford Area: 200E

Coordinates: (E) 575657.7 (N) 135885 Washington State Plane

Associated Structures: Two earth dams with wooden gate structures to regulated water flow. They were located at N41150, W45500 and N41550, W45200. 02/02/96

Site Accessible: No

Access Restrictions: Underground Radioactive Material

Health Restrictions:

Driving Instructions:

Environmental Monitoring Desc: Radiological surveys of the surface are performed annually. When active, water samples were collected weekly. Sediment and vegetation samples were collected annually. 02/02/96

Release Desc: 10/2/84: Hydrazine - 280 lb, Hydroxylamine nitrate - 407 lb; 12/2/84: Potassium hydroxide - 62,683 lb; 1/18/85: Nitric acid - 6,236 lb; 2/8/85: Sodium nitrite - 160 lb; 5/27/85: Nitric acid - 223 lb; 6/25/85: Nitric acid - 24,189 lb, Ammonium fluoride - 5,368 lb, Ammonium nitrate - 1,016 lb; 8/6/85: Sodium hydroxide - 42,440 lb; 10/28/85: Nitric acid - 1,181 lb; 12/18/85: Cadmium nitrate - 35 lb; 7/7/86: Hydrazine - 6 lb.

Release Potential Desc:

Site Comment: The site was backfilled and interim stabilized in 1991. The surrounding Surface Contamination Area was consolidated into the ditch prior to backfilling. 02/02/96

Waste Desc: The unit received waste from 202-A chemical sewer, acid fractionator condensate and condenser cooling water that flow to 216-B-3 Pond. Until December 1957, the site received process cooling water and chemical sewer waste from 202-A. From December 1957 to February 1958, the site received all of the above, but the process cooling water was rerouted to 216-A-25 Pond. From February 1958 to December 1962, the ditch received the above plus acid fractionator condensate from 202-A. From December 1962 to December 1963, the ditch also received seal cooling water from air sampler vacuum pumps in 202-A. From December 1963 to January 1966 the vacuum pump cooling water was rerouted to 216-A-35 French Drain. 02/02/96

Process Desc:

References:

1. L. L. Lundgren, 1-1-70, 200 East and North Areas Radioactive Liquid Waste Disposal Sites, ARH-1562.
2. H. L. Maxfield, 4-1-79, 200 Area Waste Sites. (Vol. 1,2 and 3), RHO-CD-673.

3. K. H. Cramer, Hanford Site Waste Management Units Report, May 1987.
4. 2-89, Preliminary Operable Units Designation Project, WHC-EP-0216.
5. R. E. Wheeler to F. A. Ruck III, 6-24-88, Comments and Revisions to the 200/600 Area Waste Units listed in the 3004(u) Report, WHC Mem. #80322-88-076.
6. 4-87, Preliminary Closure/Post-Closure Plan 216-A-29 Ditch.
7. William M. Hayward, 11-15-91, Comments on the 1992 Hanford Site Waste Management Units Report Draft.
8. Kathy Myles, WIDS Site Modification: 216-A-29 (#94-430).
9. SMITH, D.L., 1991, 216-A-29 Ditch Interim Stabilization Final Report., WHC-SD-DD-71-060.

**Dimensions:**

	<u>Meters</u>	<u>Feet</u>
Length:	1,219.20	4,000.00
Width:	1.83	6.00
Depth / Height:		
Diameter:		
Area:	26,304.57	283,139.73

Overburden Depth:

**References:**

1. H. L. Maxfield, 4-1-79, 200 Area Waste Sites. (Vol. 1,2 and 3), RHO-CD-673.
2. Topographical Map PUREX Chemical Sewer Ditch, H-6-2441 R0.

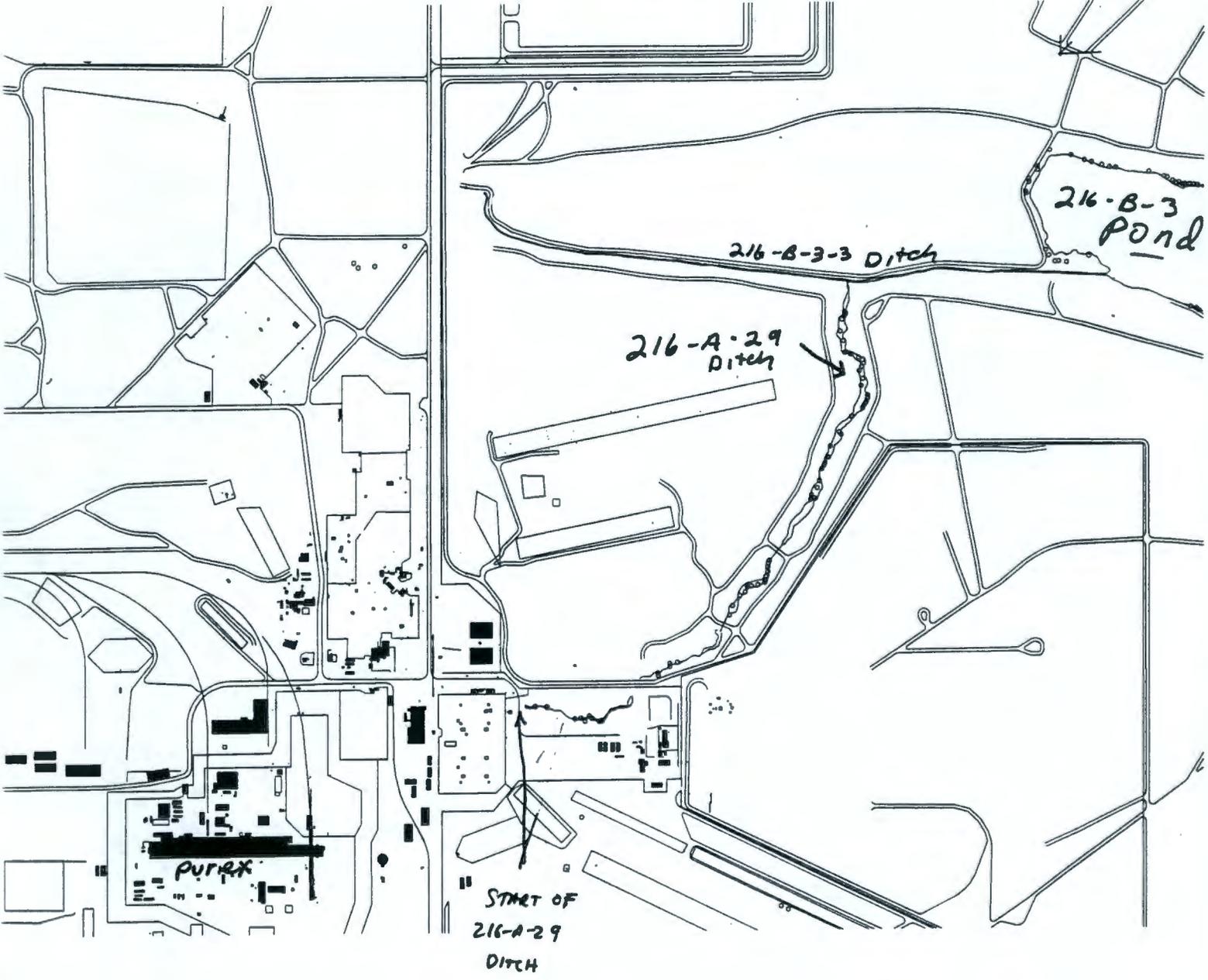
**Regulatory Information:**

Part A Permit Application Written:	Yes	Interim Closure Plan Written:	Yes
Part B Permit Application Written:	No	Covered under TPA Action Plan:	Yes
Registered Class V Underground Injection Well:	No	Solid Waste Management Unit:	Yes
Regulatory Authority:	TSD		
TSD Number:	D-2-3		

**References:**

1. 12-88, Hanford Site Dangerous Waste Part A Permit Application. Vol. 1,2,3, DOE/RL 88-21.
2. 2-27-89, Action Plan For Implementation of the Hanford Facility Agreement and Consent Order.
3. Prepared by DOE, 3-11-88, Registration of Hanford Site Class V Underground Injection Wells.
4. 2-89, Preliminary Operable Units Designation Project, WHC-EP-0216.
5. Jack Waite to Sherry Griffin, 11-12-90, Review Comments on the 1990 Hanford Site Waste Management Units Report, DSI.

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(Stenner et al. 1988). The waste is expected to contain cesium-137, ruthenium-106, and strontium-90 (Brown et al. 1990).

When the specific retention capacities of the units were reached, they were deactivated by removal of surface piping and backfilling the excavations (Lundgren 1970). Both sites were surface stabilized in September 1990 (Huckfeldt 1990). Other than a few specks of contamination with up to 5,000 c/m, this site has been below detection limits (environmental protection hardfiles).

#### 7.9 216-A-23A AND 216-A-23B FRENCH DRAINS

These french drains are located in the southeast corner of the 241-A tank farm, south of the 431-A ventilation building. Both are constructed below grade, only a single yellow gooseneck pipe was observed to mark their location in the field (BHI 1994; site visit by authors, 1991). Six-thousand liters of de-entrained tank condensate and the back flush waste from the 241-A-431 building was discharged to each unit. The waste is low salt and is expected to contain less than 50 Ci total beta activity (Stenner et al. 1988). The sites were deactivated by water-sealing the pipes leading to them (Lundgren 1970).

#### 7.10 216-A-24 CRIB

The 216-A-24 crib is located outside the perimeter fence, about 750 ft northwest of the 241-AX tank farm along Canton Avenue (Harmon et al. 1975). The site received 820,000,000 L of the condensate from the waste storage tanks in the 241-A and 241-AX tank farms. The waste is believed to be low salt and contain cesium-137, ruthenium-106, and strontium-90 (Brown et al. 1990).

The valve to the crib was believed to have been closed in January 1966. However, it was still open in 1979 (Occurrence Report 79-113). The valve has since been closed. Because of this inadvertent use, the radionuclide inventory is unknown for 1967 to 1979 (BHI 1994). This site was deactivated and the waste was routed to the 216-A-8 crib (Lundgren 1970). In September 1990, the surface of the site was stabilized (Huckfeldt 1990). At the present time it is currently about 2 ft above grade and there are numerous concrete marking posts lying around the site (site visit by authors, 1991). The crib adjoins the area of UPR UN-200-E-56.

Wells E26-2, E26-3, E26-4, E26-5, and E26-7 monitor this unit. Data indicate that breakthrough to groundwater could have occurred from the first and second section of the unit (Fecht et al. 1977). Prior to 1988, radiation surveys identified brush with up to 30,000 c/m (beta). Since then, the crib area has generally been below detectable limits (environmental protection hardfiles).

#### 7.11 216-A-29 DITCH

This active waste site is located outside the perimeter fence, 525 ft southeast of the southeast corner of the 241-A tank farm. This unit empties into the 216-B-3-3 ditch, which terminates at the 216-B-3 pond (Maxfield 1979). The unit has received wastes from the 202-A building chemical sewer, acid fractionator condensate and condenser cooling water that flows to the 216-B-3 pond (Maxfield 1979). Until December 1957, the site received process cooling water and chemical sewer waste from the 202-A building. From December 1957 to February 1958, the site received the above

waste minus the process cooling water, which was rerouted to the 216-A-25 pond. From February 1958 to December 1962, the site received the above waste plus acid fractionator condensate from the 202-A building. From December 1962 to December 1963, the site received the above waste plus seal cooling water from air sampler vacuum pumps in the 202-A building. From December 1963 to January 1966, the site received the above waste minus vacuum pump cooling water, which was rerouted to the 216-A-35 french drain (BHI 1994).

The site has had many known releases of chemicals, which included:

<u>Date</u>	<u>Amount (lbs)</u>	<u>Chemical</u>
10-02-84	280	Hydrazine
	407	Hydroxylamine nitrate
12-02-84	62,683	Potassium hydroxide
01-18-85	6,236	Nitric acid
02-08-85	160	Sodium nitrate
05-27-85	233	Nitric acid
06-25-85	24,189	Nitric acid
	5,368	Ammonium fluoride
	1,016	Ammonium nitrate
08-06-85	42,440	Sodium hydroxide
10-28-85	1,181	Nitric acid
12-18-85	35	Cadmium nitrate
07-07-86	6	Hydrazine

The radionuclide inventory for this ditch is included with the 216-B-3 system (Maxfield 1979). Water samples are taken weekly and sediment and vegetation samples are taken annually (BHI 1994). In 1989, a 2,000 c/m (beta) spot of contamination was identified. Otherwise, the ditch is below detection level (environmental protection hardfiles).

The site has recently undergone dramatic change. South of the Grout Treatment Facility perimeter fence, the ditch has been filled to grade with gravel and surrounded with a light chain barricade posted with underground contamination placards. From the perimeter fence north to 216-B-3-3, the ditch has been cleared of vegetation and graded to a gentle side slope. Several gravel covered ridges cross the ditch. Unlabeled concrete markers were in place and were being surveyed during the November 1991 site visits (site visit by authors, 1991).

#### 7.12 216-A-34 DITCH

The ditch is located about 300 ft east of Canton Avenue and about 900 ft northeast of the 241-A tank farm (Maxfield 1979) on the north end of the 216-A-8 crib (BHI 1994). The unit received cooling water from the contact condenser, located in the 241-A-431 building, enroute to the 216-A-19 and 216-A-20 trenches. The site contains less than 1 Ci total beta activity (Stenner et al. 1988).

The site was deactivated by blanking the effluent pipeline to the unit and then backfilling. The waste has been rerouted to the 216-A-8 crib (Lundgren 1970). The site surface was stabilized in September 1990 (Huckfeldt 1990). Prior to 1991, some spots with readings to 10,000 dis/min (beta) were identified. Since 1991, surveys have been below detection limits (environmental protection

In collaboration with numerous parties, the U.S. Department of Energy (DOE) has decided to privatize the treatment and disposal of most of the mixed waste contained in Hanford's underground mixed waste storage tanks. Privatization is defined as vendors, under contract with DOE, using private funding to design, permit, construct, operate, decontaminate, and decommission their own equipment and facilities to treat tank waste. Payment for these services would take the form of fixed price per unit of product meeting DOE's specifications. Vendors are to be selected through a fixed price competitive process.

Privatization activities have been divided into two phases. Phase I, a 'proof of concept' phase, is to demonstrate the capabilities of privatization through the treatment of small a portion of the waste. A pilot plant, if you will. Once demonstrated, privatization will be expanded into Phase II to include the treatment and disposal of the remainder of the waste.

In concert with the preparation of the Tank Waste Remediation System (TWRS) Request for Proposals (RFP)(RL, 1996) for the solicitation of privatization contractors, a location was selected for the Phase I facilities (Shord, 1996). The area that was previously developed and characterized for the Grout Disposal Site was selected for numerous reasons. Foremost, is that it adjoins the planned feed tanks in the 200 East Area and is of sufficient size for two competing vendors to carry out the demonstration of pretreating, immobilizing, and vitrifying mixed waste. The selected area will be parceled, and each privatization contractor (or privateer) will be assigned a site for development.

To prepare for the privateer's development of their assigned sites, utilities must be extended from the 200 East Area infrastructure. This study is to address pertinent issues related to the extension of raw, fire suppression, and sanitary (potable) water services to the boundary of the parcel to be assigned to each privateer.

**Unit Manager's Meeting: Remedial Action Unit/Source Operable Units  
100, 200, and 300 Areas**

Nancy Werdel .....	DOE-RL, RP (H0-12)
Mike Thompson .....	DOE-RL, RP (H0-12)
Glenn Goldberg .....	DOE-RL, RP (H0-12)
John Murphy .....	DOE-RL, RP (H0-12)
Rich Holten .....	DOE-RL, RP (H0-12)
Bryan Foley .....	DOE-RL, RP (H0-12)
Robert McLeod .....	DOE-RL-ERD (H0-12)
Ellen Mattlin .....	DOE-RL, EAP (A5-15)
Lisa Treichel .....	DOE-HQ (EM-442)
Steve Balone .....	DOE-HQ (EM-442)
Dennis Faulk .....	100 Aggregate Area Manager, EPA (B5-01)
David Einan .....	EPA
Paul Beaver .....	EPA
Larry Gadbois .....	EPA
Kevin Oates .....	EPA
Phil Staats .....	100 Aggregate Area Manager, WDOE (B5-18)
Chuck Cline .....	WDOE (Lacey)
Wayne Soper .....	WDOE (Kennewick) (B5-18)
Ted Wooley .....	WDOE (Kennewick) (B5-18)
Gary Freedman .....	WDOE (Kennewick) (B5-18)
Norman Hepner .....	WDOE (Kennewick) (B5-18)
David Holland .....	WDOE (Kennewick) (B5-18)
Keith Holliday .....	WDOE (Kennewick) (B5-18)
Lynn Albin .....	Washington Dept. of Health
V. R. Dronen .....	(H0-17)
G. O. Gesell .....	(H0-17)
T. L. Lundquist .....	(H0-17)
J. R. James .....	(H0-17)
G. E. Van Sickle .....	(H0-17)
J. G. Woolard .....	(H0-17)
C. R. Johnson .....	(H0-17)
R. A. Carlson .....	(H0-17)
L. C. Hulstrom .....	(H9-11)
M. J. Galgoul .....	(H9-12)
Alvina Goforth .....	BHI DCC (H0-09) Kay KimmelMAC (B1-42)
T. M. Wintczak .....	BHI (H0-11)
Andrea Hopkins .....	BHI (H9-11)
Tom Page (Please route to:) .....	PNNL (K9-18)
Cheryl Thornhill .....	PNNL (K9-14)
Mark Hanson .....	PNNL (K9-02)
Steve Slate .....	PNNL (K9-14)

Please inform Tamen Lundquist (372-9562) of BHI  
of deletions or additions to the distribution list. Attachment #1