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MAY 20 1992

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 158675

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) Environmental Remedial Action	4. Related EDT No.:
5. Proj./Prog./Dept./Div.: ERA/ERE/ED	6. Cog. Engr.: F.W. Gustafson	7. Purchase Order No.: N/A
8. Originator Remarks: Approval/Release		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: N/A
11. Receiver Remarks:		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date:

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1	WHC-SD-EN-PD-006		0	White Bluffs Pickling Acid Crib Expedited Response Action Proposal	4	1/2		

16. KEY		
Impact Level (F)	Reason for Transmittal (G)	Disposition (H) & (I)
1, 2, 3, or 4 (see MRP 5.43)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Impact Level for required signatures)											
(G)	(H)	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	Reason	Disp.
1/2	1	Cog. Eng. F.W. Gustafson	<i>F.W. Gustafson</i>	4/15/92	H4-55	EDMC (2)			H4-22	3	
1/2	1	Cog. Mgr. W. L. Johnson	<i>W.L. Johnson</i>	4/15/92	H4-55	IRA CLEARANCE			H4-17	3	

18. <i>F.W. Gustafson</i> F. W. Gustafson Signature of EDT Originator	Date 4/15/92	19. _____ Authorized Representative for Receiving Organization	Date	20. <i>W.L. Johnson</i> W. L. Johnson Cognizant/Project Engineer's Manager	Date 4/15/92	21. DOE APPROVAL (if required) Ltr. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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BD-7400-172-2 (07/91) GEF097



BD-7400-172-1 (02/89)

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INFORMATION RELEASE REQUEST

References:
WHC-CM-3-4

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Title WHITE BLUFFS PICKLING ACID CRIB EXPEDITED RESPONSE ACTION PROPOSAL	Unclassified Category UC-	Impact Level 4
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COMPLETE FOR SPEECH OR PRESENTATION

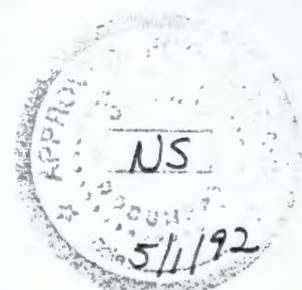
Title of Journal N/A	Group or Society Sponsoring n/a	
Date(s) of Conference or Meeting n/a	City/State 	Will proceedings be published? <input type="checkbox"/> Yes <input type="checkbox"/> No Will material be handed out? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Review Required per WHC-CM-3-4	Yes	No	Reviewer Name (printed)	Signature	Date
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Legal - General Counsel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BD. Williamson	<i>[Signature]</i>	4/27/92
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Other Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
References Available to Intended Audience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	F. W. Gustafson	<i>[Signature]</i>	4/15/92
Transmit to DOE-HQ/Office of Scientific and Technical Information	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Information conforms to all applicable requirements. The above information is certified to be correct.

Author/Requestor (Printed/Signature) F. W. Gustafson <i>[Signature]</i>	Date 4/15/92
Responsible Manager (Printed/Signature) W. L. Johnson <i>[Signature]</i>	Date 4/15/92
Intended Audience <input type="checkbox"/> Internal <input type="checkbox"/> Sponsor <input checked="" type="checkbox"/> External	

INFORMATION RELEASE ADMINISTRATION APPROVAL STAMP Stamp is required before release. Release is contingent upon resolution of mandatory comments. 
Date Received 4/15/92

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- The project or program manager concurs with the issuance of this report.
- The reference citations are necessary, correct and appropriate for the intended audience and will be publicly available at the time the document is published.
- If a journal article, the reference style agrees with guidance from the client or journal publisher.
- Contributions from authors of other organizations indicated in the comment section of this form.
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- The client approved this for release.
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- The inferences and conclusions are soundly based.

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SUPPORTING DOCUMENT		1. Total Pages 25
2. Title White Bluffs Pickling Acid Crib Expedited Response Action Proposal	3. Number D WHC-SD-EN-PE-006	4. Rev No. 0
5. Key Words White Bluffs Pickling Acid Crib, Non-time Critical Expedited Response Action, Engineering Evaluation/Cost Analysis APPROVED FOR PUBLIC RELEASE	6. Author Name: F. W. Gustafson <i>F. W. Gustafson</i> Signature Organization/Charge Code 81225/PK17A	
7. Abstract <i>5/1/92 N. Solis</i> This document proposes a non-time critical Expedited Response Action be performed in at the White Bluffs Pickling Acid Crib in an attempt to minimize or remove potential environmental hazards posed at the facility.	10. RELEASE STAMP OFFICIAL RELEASE BY WHC (20) DATE MAY 20 1992 <i>Sta. 21</i>	
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9. Impact Level 4		

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1.0 INTRODUCTION

1.1 PURPOSE

This document provides information for a proposed Expedited Response Action (ERA) at the White Bluffs Pickling Acid Crib disposal site. This information provides the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology) a general understanding of the proposed project.

If the ERA process is continued, a comprehensive ERA proposal will be prepared in accordance with the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) (Ecology et al. 1991). This will allow for public involvement and regulatory approval of the ERA prior to actual implementation of the proposed response action.

This proposal for conducting an ERA at the White Bluffs Pickling Crib site is being prepared at the request of the EPA and Ecology (Attachment 1).

1.2 BACKGROUND

The 600 Area pickling acid crib was used for the disposal of nitric and hydrofluoric acid used to pickle galvanized piping for use in the construction of reactor buildings. The crib is located approximately 3/4 mi south of the White Bluffs town site, east of Federal Avenue (Figure 1). The pickling process utilized several thousand gallons of nitric and hydrofluoric acid. Potential contaminants of concern include nitric and hydrofluoric acid and chromium. No chemical inventory is available for the disposal site.

2.0 SITE DESCRIPTION

The Waste Information Data System (WIDS) and other supporting documentation indicate the presence of one crib, 50 ft by 30 ft by 10 ft in depth (WIDS 1988). A visual facility inspection, however, indicated the presence of two cribs located side by side, each approximately 200 ft by 50 ft in width (Figure 2). Vent pipes spaced 7 to 9 feet apart protrude from the surface of the facility in three evenly spaced rows that run the length of the crib.

A riser pipe, approximately 36-in. diameter, protrudes from the northern end of the west crib. A pipe, 2 to 3-in. diameter, runs into this culvert from the north and was apparently the source of influent into the crib (Figure 3). WIDS indicates the facility was retired in 1945. The surface has been stabilized with large cobbles.

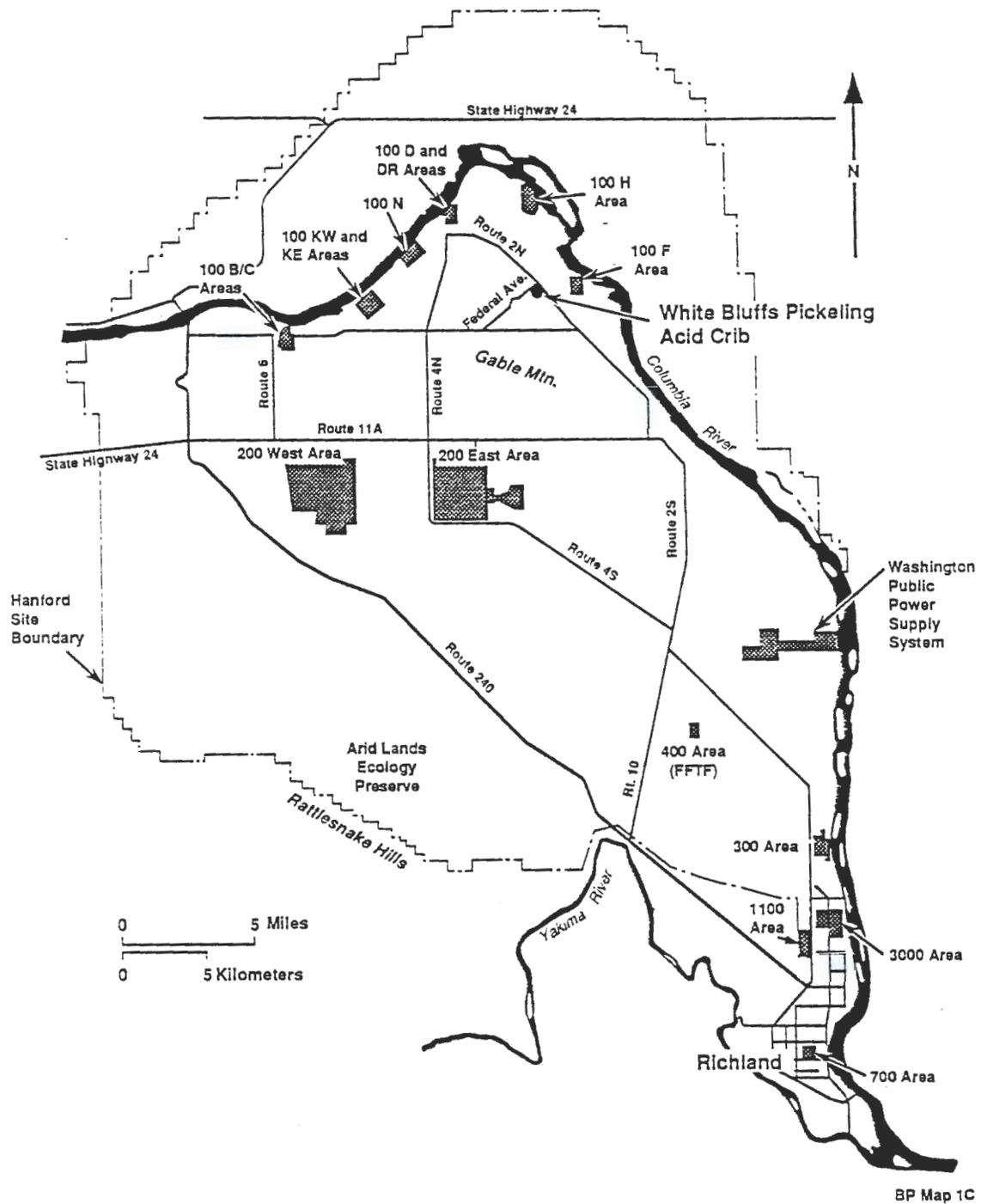


Figure 1. Location of Pickling Acid Crib.



Figure 2. White Bluffs Pickling Acid Crib.



Figure 3. Crib Riser Pipe Showing Influent Pipeline.

3.0 BENEFIT OF THE EXPEDITED RESPONSE ACTION

Recent increase in public awareness of activities that influence the environment has drawn considerable attention to the Hanford Site. Many of the concerns expressed by the public regarding the Hanford Site address the issue of the further spread on contamination in the environment. Since the cribs are a potential source of groundwater contamination, which is hydraulically connected to the Columbia River, the potential exists for offsite exposure to hazardous substances. Implementing an expedited response prior to eventual remediation as required by the Tri-Party Agreement, could reduce or eliminate these concerns in the interim. This ERA would also benefit all parties concerned (regulatory agencies, the public, and DOE) by demonstrating the DOE's commitment to a bias for action.

4.0 CONCEPT OF THE EXPEDITED RESPONSE ACTION

4.1 GOAL

The goal of the White Bluffs Pickling Acid Crib ERA is to minimize or eliminate the environmental hazards posed by the facility. Wastes removed from the area will be disposed in accordance with current Westinghouse Hanford and regulatory requirements. In addition, these actions would likely lead to the issuance of a record of decision for the 100-IU-5 Operable Unit, thus removing the operable unit from further cleanup actions mandated by the Tri-Party Agreement.

4.2 MEASURE OF SUCCESS

Success of the ERA will be measured in terms of stabilization or removal of the environmental threats posed by the waste disposal facility. Potential successes outside the goal of the ERA would be in future cleanup actions at the site and operable unit unnecessary.

4.3 IMPLEMENTATION

The process for implementing an ERA at the White Bluffs Pickling Acid Crib site would follow the format outlined in the Tri-Party Agreement. The ERA is considered to be non-time critical, such that a planning period of at least 6 months could occur prior to initiation of the activity. Implementation of a non-time critical ERA requires an engineering evaluation/cost assessment (EE/CA) be conducted and results submitted to the lead regulatory agency. The EE/CA will be contained in an ERA proposal that will provide the additional details necessary for implementing the alternative chosen by the EE/CA. The outline of the ERA implementation process is briefly described in the following sections.

4.3.1 ERA Project Plan

An ERA project plan will be prepared that outlines how the ERA will be implemented (Attachment 2 provides an outline for the project plan). The project plan will identify each of the alternatives to be considered by the EE/CA and the site evaluation tasks necessary to evaluate the alternatives. This plan is a secondary document as defined by the Tri-Party Agreement.

4.3.2 Site Evaluation

The primary purpose of the site evaluation is to identify the nature and extent of the environmental hazards associated with the site. Information necessary for the stabilization/remediation of the pickling crib will be obtained. Samples will be taken from areas believed to contain hazardous wastes. A cone penetrometer survey will be performed to determine the extent of contamination in the soil column.

The information obtained by the site evaluation is essential for completing the EE/CA in which the restoration alternative is chosen. In addition, the data will be useful in assessing worker health and safety requirements while implementing the ERA. The results of all site evaluation activities will be documented in the ERA proposal.

4.3.3 ERA Proposal and Action Memorandum

The ERA proposal includes the results of the EE/CA, which evaluates the various alternatives considered with recommendations based on that evaluation. The EE/CA provides refinement and specification of the alternatives, followed by a detailed analysis based on; 1) public health and welfare, and environmental impacts, 2) technical feasibility, 3) institutional considerations, and 4) cost.

Also included in the ERA proposal is a schedule for implementation of the recommended alternative as well as a project management/implementation plan. Attachment 3 provides an annotated outline suggested for the ERA proposal.

The ERA proposal will undergo a DOE, EPA, and Ecology review. The public will also be allowed to review the document. As specified in the Tri-Party Agreement, the EPA will ultimately be responsible for issuing an ERA Action Memorandum, providing the direction to proceed with the activities proposed in the ERA proposal.

4.3.4 Project Implementation

Following approval of the ERA proposal and issuance of the ERA Action Memorandum, the chosen alternative will be implemented.

4.3.5 Reporting

Upon completion of the ERA, a final report assessing and evaluating the ERA will be prepared for distribution.

4.4 ERA SITE SELECTION WORKSHEET

A site selection worksheet has been completed for the North Slope ERA and is provided in Attachment 4.

4.5 COST AND SCHEDULE SUMMARY

A preliminary cost estimate and schedule for implementing the White Bluffs Pickling Acid Crib ERA is provided in Attachment 5. It should be noted that the cost and schedule estimates reflect the certain assumption documented in the estimate. A revised cost estimate, based on the results of the site evaluation tasks, will be issued in the ERA proposal.

5.0 REFERENCES

- Ecology, EPA, and DOE, 1991, *Hanford Federal Facility Agreement and Consent Order*, Washington Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.
- WIDS, 1988, *Waste Information Data System*, Westinghouse Hanford Company, Richland, Washington.

ATTACHMENT 1
REQUEST FOR PROPOSALS



9201739

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 4, 1992



Mr. Steven H. Wisness
Hanford Project Manager
U.S. Department of Energy
P.O. Box, 550 A5-19
Richland, WA 99352

Re: Expedited Responses Action Planning Proposals and Implementation

Dear Mr. Wisness:

On January 22, 1992, a meeting was held to discuss the selection of new Expedited Response Actions (ERA). The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) assumed the task of identifying candidate sites for planning proposal preparation, and identification of lead regulatory agency.

The primary reasons to perform ERAs are to minimize or eliminate the potential for release of hazardous substances and/or radionuclides in the environment and to initiate actions consistent with anticipated remedy selections. The final remedy selection would be made after completion of a Remedial Investigation/Feasibility Study (RI/FS) or a RCRA Facility Investigation/Corrective Measures Study (RFI/CMS).

On December 12, 1991, a meeting was held to discuss selection of new ERAs. In this meeting, the U.S. Department of Energy (DOE) and Westinghouse Hanford Company (WHC) provided EPA and Ecology with a list of twenty-two (22) candidate sites. In addition, DOE and WHC were seeking approval to proceed with EE/CA preparation for the 300 Area Burial Grounds. Based on this meeting and a continuing dialogue between Ecology, EPA, DOE, and WHC, four (4) sites from the candidate list have been selected for planning proposal preparation. In addition, we request DOE submit planning proposals for two additional sites that were drafted previously for DOE, but as yet have not been submitted to Ecology and EPA.

Ecology and EPA prefer to delay initiation of an ERA on the 300 Area Burial Grounds. With the use of test pits in both the liquid disposal sites and the burial grounds, it appears the schedule for completion of RI/FS activities in 300-FF-1 may be accelerated. In addition, treatability tests planned for this year may identify appropriate means for remediating contaminated sediments from the liquid disposal sites as well as the burial grounds. Early completion of these investigations could result in a final Record of Decision for the 300-FF-1 Operable Unit earlier than projected. Ecology and EPA prefer

Mr. Steve H. Wisness
March 4, 1992
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this course of action because it would potentially eliminate the need to handle waste from the burial grounds twice (once as part of the ERA and again as part of the final remedy).

Ecology and EPA have selected the following four sites for planning proposal preparations:

Sodium Dichromate Barrel Disposal Landfill in 100-IU-4 Operable Unit

The sodium dichromate barrel disposal site in the 100-IU-4 Operable Unit was selected in part due because this is the only facility located within the 100-IU-4 Operable Unit. Also, early remedial action at this operable unit may abate the potential of more extensive environmental degradation. Any ground water contamination from the sodium dichromate barrel site would be addressed as part of the 100-HR-3 Operable Unit. Removal of drums and contaminated sediments from this site may completely remediate the 100-IU-4 Operable Unit or may result in a no further action record of decision. This ERA would be designated as an Ecology lead site due to its location within the 100-HR-3 ground water operable unit for which Ecology is also the lead regulatory agency. An ERA at the sodium dichromate barrel disposal site should not require extensive planning or characterization prior to initiation and therefore field work should begin in fiscal year 1992.

U.S. Bureau of Reclamation 2,4-D Burial Site in 100-IU-3 Operable Unit

The U.S. Bureau of Reclamation 2,4-D burial site in the 100-IU-3 Operable Unit was also selected in part because it is the only documented hazardous waste disposal area located north of the Columbia River on the Hanford Site. In addition, this site is one of the few waste sites where DOE does not control access. Removal of drums and contaminated sediments from this site could eliminate the primary source of hazardous waste from this part of the Hanford Site and enhance public safety. The north slope area of the Hanford Site has been of particular interest to Ecology due to public access and the existing lease agreement between DOE and the Washington State Department of Fish and Wildlife. Ecology would be designated lead regulatory agency for both this ERA and the 100-IU-3 Operable Unit.

White Bluffs Pickling Acid Crib in 100-IU-5 Operable Unit

The White Bluffs pickling acid crib in the 100-IU-5 Operable Unit represents a significant source of acidic metal waste solution. This waste was generated from the final cleaning of reactor cooling pipes prior to installation in Hanford's eight single-pass reactors. These liquid disposal sites are located approximately one mile west of the 100-F Area near the old White Bluffs town site. Again, this site represents the primary source of contamination within the 100-IU-5 Operable Unit and a removal action at this facility will likely limit

Mr. Steve H. Wlness

March 4, 1992

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the need for and extensive investigation through an RI/FS. Since little is known about the extent of contamination associated with the White Bluffs pickling acid crib, some degree of characterization will likely be required as part of an ERA at this site. Due to its location upgradient of 100-F Area, EPA would be designated as lead regulatory agency for both this ERA and the 100-IU-5 Operable Unit.

100-IU-1 River Rail Wash Pit and 600 Area Army Munitions Burial Site

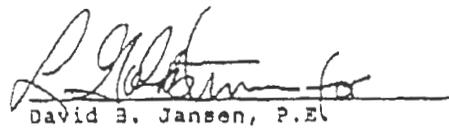
The 100-IU-1 operable unit contains two units. The riverland railroad car wash pit was decontaminated in 1963, and subsequently released from radiation zone status. Site records indicate that all items were removed from the munitions burial site in 1986. These sites are both located west of Highway 240 and lack the access controls present at nearly all other past practice sites at Hanford. EPA will be lead agency for this ERA and the 100-IU-1 Operable Unit. This presents the potential opportunity to reach a decision to take no further action at an operable unit after performing a confirmatory investigation. We expect that the entire investigation could be done as part of the ERA. If that is the case, the ERA would be followed by administrative steps to reach a final ROD.

Planning proposals for two additional sites are already drafted, but not released. These are for the 100 Area river outfall pipes and the 618-11 burial ground. These planning proposals should be transmitted to Ecology and EPA without delay. The regulatory lead agency will be identified for these proposals in the notice to proceed with ES/CA preparation.

Should you have any questions about the selection of candidate sites for planning proposal preparation or implementation, please contact either Steve Cross of Ecology (206) 459-6675 or Doug Sherwood of EPA (509) 376-9529.

Sincerely,


Paul T. Day
Hanford Project Manager
EPA Region 10


David B. Jansen, P.E.
Hanford Project Manager
Washington State
Department of Ecology

cc: . T. Veneziano, WHC

**ATTACHMENT 2
PROJECT PLAN OUTLINE**

ERA PROJECT PLAN

- 1.0 INTRODUCTION
 - 1.1 PURPOSE
 - 1.2 BACKGROUND
 - 1.3 ORGANIZATION
- 2.0 SITE CHARACTERISTICS
 - 2.1 FACILITIES/STRUCTURES
 - 2.2 GEOLOGY/SOIL
 - 2.3 HYDROGEOLOGY
- 3.0 PRELIMINARY IDENTIFICATION AND SCREENING OF ALTERNATIVES
- 4.0 SITE EVALUATION TASKS
- 5.0 ERA PROPOSAL TASKS
- 6.0 ERA DESIGN AND IMPLEMENTATION TASKS
- 7.0 PROJECT SCHEDULE
- 8.0 REFERENCES

ATTACHMENTS

- Attachment 1 Sampling and analysis plan
- Attachment 2 Health and safety plan
- Attachment 3 Project management plan

**ATTACHMENT 3
ANNOTATED ERA PROPOSAL OUTLINE**

1.0 INTRODUCTION

The introduction defines the purpose and scope of the ERA proposal. The discussion includes the various reasons and requirements for performing the ERA. The relationship between the ERA and the ongoing remedial investigation/feasibility study activities will also be described.

2.0 SITE DESCRIPTION

This section provides a brief description of the site being considered for an ERA. A summary of the information that is pertinent to the selection of the preferred alternative is included.

3.0 SITE EVALUATION ACTIVITIES

This section describes the activities conducted for characterization of the site. Information gathered during those activities are also included, evaluated, and summarized.

4.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

This section identifies applicable or relevant and appropriate requirements to be considered in the engineering evaluation/cost analysis.

5.0 IDENTIFICATION OF RESPONSE TECHNOLOGIES

Response technologies that could achieve the objectives of the ERA are evaluated. A summary of the evaluation process is provided.

6.0 ANALYSIS OF RESPONSE ACTION ALTERNATIVES

Various response action alternatives are assemble and evaluated. Those alternative warranting further evaluation are summarized.

7.0 ENGINEERING EVALUATION/COST ANALYSIS

Each criterion to be used to evaluate the ERA alternatives summarized in Section 6.0 is identified in this section. The method of scoring the alternatives against these criteria is also explained.

8.0 IMPLEMENTATION OF PREFERRED ERA ALTERNATIVE

This section provides a discussion detailing the implementation of the preferred ERA alternative chosen in Section 7.0. All procedures that will be used or that need development will be identified. All permits, such as excavation permits and Hazardous Waste Operators Permits, will also be mentioned. Health and safety, waste management, waste minimization, and environmental monitoring will be discussed.

9.0 PROJECT MANAGEMENT PLAN

Each of the organizations that will participate in the implementation of the ERA and their roles is identified in this section. A flow chart showing the management structure, a detailed schedule for implementation, and cost estimates for implementing the ERA activity are provided.

ATTACHMENT 4
ERA SITE PRIORITIZATION WORKSHEET

Site Selection Worksheet

Project Name: White Bluffs Pickling Acid Crib

Project Description: The scope of this project is to evaluate the extent of contamination at the pickling acid crib site and remove or mitigate any environmental hazards posed by the site.

ERA Category: Time Critical Non-Time Critical

Evaluation Checklist

Time Critical ERAs:

Actual Exposure/Release Yes No

Imminent Exposure/Release Yes No

Rationale:

Non-Time Critical ERAs:

1. Potential Exposure: Yes No

Rationale: The site was used to dispose of spent pickling acid, (including nitric and hydrofluoric acid), used on galvanized piping used in construction of the 100 area reactor buildings. The site is not fenced. Potential exposure pathways include both ingestion as well as possible groundwater contamination which may reach the Columbia River.

2. Potential Increased Degradation: Yes No

Rationale: Since the specific volume of pickling acid disposed of at the site is not known, the potential exists for the migration of hazardous substances from the facility into the groundwater.

3. Implementability: Yes No

Rationale: Implementation of this project is highly feasible given adequate funding.

4. Short-Term Effectiveness: Yes No

Rationale: Since implementation of this project would result in the removal or reduction in the environmental threats posed, the project would be effective in the short-term.

5. Reduction of Toxicity, Volume, Migration: Yes No

Rationale: Implementation of this project would minimize or eliminate any toxicological and migratory hazards that may be present.

6. Cost Effectiveness: Yes No

Rationale: Implementation of this project could occur at a relatively minimal cost. It would be more advantageous to investigate and remove the environmental hazards present at this time as opposed to allowing for the possible exposure of personnel as well as further degradation of the environment.

7. Long-Term Effectiveness: Yes No

Rationale: The project would potentially be effective in the long term as it is currently proposed to completely remove and properly dispose of the hazardous substances present at the pickling acid crib disposal site.

8. Consistent with Final Remedy: Yes No

Rationale: Removal of the environmental hazards is consistent with final remediation goals. Actions taken are likely to be the final remedial efforts needed in the area.

9. Compliance with ARARs: Yes No

Rationale: Since the project would result in removal of environmental threats, it would strive to be consistent with final ARARs applicable for remediation of the area.

10. Information for RI/FS or Remedial Design: Yes No

Rationale: If significant environmental hazards are encountered, the data obtained from implementing the ERA would provide useful information to future RI/FS activities within the operable unit as well as other restoration/remediation projects conducted both on and off the Hanford Reservation.

11. Demonstrate Technologies: Yes No

Rationale: A Cone Penetrometer survey is proposed for use in assisting in evaluating the extent of contamination at the site. If use of the system is successful at the sites, future use at significantly more hazardous crib "type" disposal site located at Hanford and elsewhere may result in safer and more cost effective environmental investigations.

12. Community Acceptance: Yes No

Rationale: Positive acceptance of this project by the community is anticipate since the ERA would expedite the removal of environmental hazards. In addition, this project will support the final record of decision of the 100-IU-5 OU.

ATTACHMENT E
WHITE BLUFFS ERA SCHEDULE AND COST ESTIMATE

WHITE BLUFFS PICKLING ACID CRIB ERA
COST AND SCHEDULE ESTIMATE

The following cost and schedule information is provided for conducting an ERA at the White Bluffs Pickling Acid Crib. Limited knowledge of the site is available and as a result, the cost and schedule estimates should be considered rough order-of-magnitude.

Assumptions have been made based on available data as what remedial actions are likely to result from these investigations. Additional data about site conditions and health and safety requirements are needed to produce more definitive estimates. A more conclusive cost estimate will be provided in the ERA proposal for the selected remediation alternative(s).

Proposed investigative tasks include performing preliminary soil sampling and analysis in an attempt to determine the extent of the vadose plume as well as verify the contaminants of concern.

A cone penetrometer is proposed for use in evaluating the extent of contamination. Use of the cone penetrometer will allow for subsurface soil sampling and monitoring with minimal generations of potentially hazardous wastes. It is assumed that no radiological contaminants are located at the crib site and limited radiological controls/monitoring will not be necessary.

Based on the volume of waste acid disposed of in the cribs (≈3,000-5,000 gal), it is assumed that removal of the contaminated soils will be the alternative of preference at this time. The waste will be handled and disposed in accordance with currently regulatory as well as Westinghouse Hanford requirements.

The cost breakdown is as follows:

PROJECT MANAGEMENT COSTS:

Project Manager	0.1 FTE/yr @ 2yr	20,000
Project Engineer	1.0 FTE/yr @ 2 yr	200,000
Clerk/Typist	0.1 FTE/yr @ 2yr	20,000
Quality Assurance	0.125 FTE/yr @ 2 yr	25,000
Health/Safety	0.25 FTE/yr @ 2 yr	50,000
Facility Safety	0.5 FTE/yr @ 1 yr	50,000
Permits (ie NEPA)	0.125 FTE/yr @ 0.5 yr	7,000
Community Relations	0.125 FTE/yr @ 2 yr	25,000

PRELIMINARY INVESTIGATION

Cone Penetrometer (15 cones)	35,000
Soil Gas Analysis	40,000
Sampling and Analysis	135,000

ERA PROPOSAL DEVELOPMENT 60,000

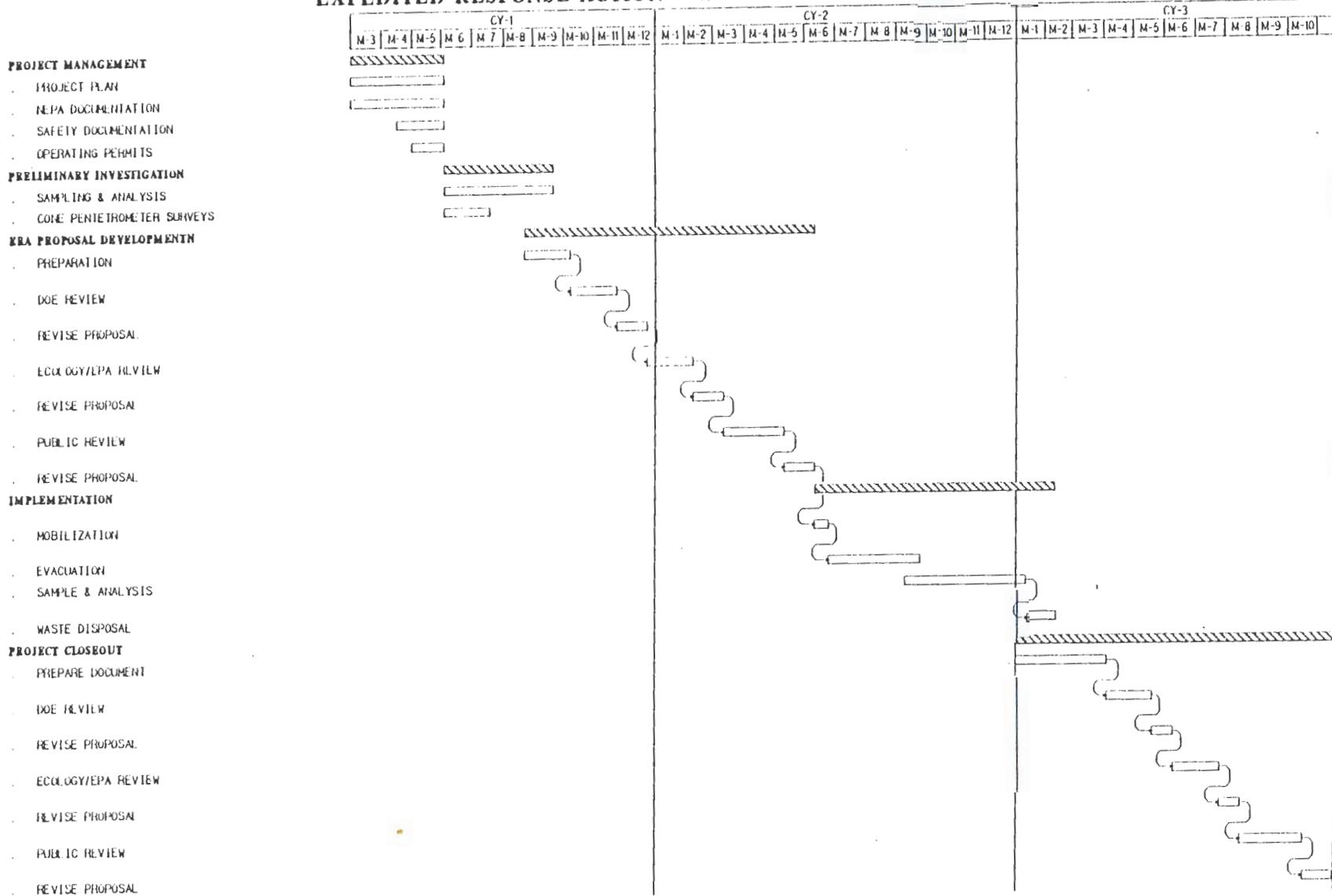
PROJECT IMPLEMENTATION

Mobilization	8,000
Excavation	200,000
Sampling and Analysis	150,000
Waste Handling/Disposal(2000 yd ³)	750,000
Project Closeout	50,000
Sub-total	\$1,825,000
Contingency (25%)	456,000
TOTAL	\$2,281,000

(Note that these costs are rough order-of-magnitude and are subject to vary with the scope of work performed.)

The following schedule is based on tasks listed in the previous cost estimate. Revised schedules will be provided in the ERA project plan with emphasis on investigation activities and in the ERA proposal based on the EE/CA selected remediation alternative.

EXPEDITED RESPONSE ACTION - WHITE BLUFFS PICKLING ACID CRIB



5-3

Project:	FGWBPAC	Date:	16 Apr 92	9:00
EXPEDITED RESPONSE ACTION - WHITE BLUFFS PICKLING ACID CRIB				
Page: 1 of 1	Drawn by:	Steve J. Sakey	6-3092	

WHC-SD-EN-PD 99053 Rev: 07/91

INFORMATION RELEASE REQUEST

References: WHC-CM-3-4

COMPLETE FOR ALL TYPES OF RELEASE

Purpose		New ID Number	
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Title WHITE BLUFFS PICKLING ACID CRIB EXPEDITED RESPONSE ACTION PROPOSAL	Unclassified Category UC-	Impact Level 4
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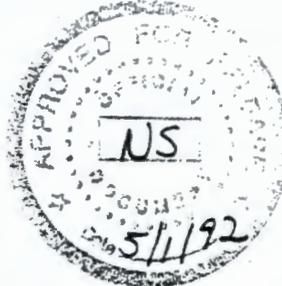
Title of Journal N/A	Group or Society Sponsoring n/a
Date(s) of Conference or Meeting n/a	City/State
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CHECKLIST FOR SIGNATORIES

Review Required per WHC-CM-3-4	Yes	No	Reviewer Name (printed)	Signature	Date
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Other Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
References Available to Intended Audience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	F. W. Gustafson	<i>[Signature]</i>	4/15/92
Transmit to DOE-HQ/Office of Scientific and Technical Information	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Information conforms to all applicable requirements. The above information is certified to be correct.

Author/Requestor (Printed/Signature) F. W. Gustafson <i>[Signature]</i>	Date 4/15/92
Responsible Manager (Printed/Signature) W. L. Johnson <i>[Signature]</i>	Date 4/15/92
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