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Document #: SD-SNF-DRR-006

Title/Desc:

FINAL DESIGN REVIEW REPORT FOR K BASIN DOSE
REDUCTION PROJECT

Pages: 38

MAR 28 1996

21

ENGINEERING DATA TRANSMITTAL

1. EDT No 615125

2. To: (Receiving Organization) Spent Nuclear Fuel/K Basin Projects	3. From: (Originating Organization) Mechanisms Engineering	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: Dose Reduction/A.8	6. Cog. Engr.: L. D. Blackburn	7. Purchase Order No.: N/A
8. Originator Remarks: Keywords: Spent Nuclear Fuel, K Basins, Dose Reduction, Water Level		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: 105KE
11. Receiver Remarks:		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date:

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	WHC-SD-SNF-DRR-006		0	Final Design Review Report for K Basin Dose Reduction Project	ESQ	1,2	1	

16. KEY		
Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D or N/A (see WHC-CM-3-5, Sec. 12.7)	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 Approval Designator for required signatures)											
(G)	(H)	(J) Name (K) Signature (L) Date (M) MSIN				(J) Name (K) Signature (L) Date (M) MSIN				(G)	(H)
Reason	Disp.									Reason	Disp.
	1	Cog. Eng.	RF Creed	3/12/96	X3-85	K Basin Operations	WH Cloos	3-12-96	X3-72	1	1
	1	Cog. Mgr.	FW Moore	3/15/96	X3-85						
	1	QA	John Diehl	3-13-96	X3-80						
	1	Safety	DO Hess	3-25-96	X3-80						
	1	Env.	RG Gant	3-7-96	X3-79						
	1	Design Agent	LD Blackburn	3-7-96	H5-53						
	1	Design Auth.	WA Frier	3-19-96	X3-74						

18. Signature of EDT Originator <i>L. D. Blackburn</i> L. D. Blackburn Date: 3-7-96	19. Authorized Representative for Receiving Organization <i>F. W. Moore</i> F. W. Moore Date: 3/15/96	20. Cognizant Manager <i>R. B. Pan</i> R. B. Pan Date: 3/22/96	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
--	--	---	---

INSTRUCTIONS FOR COMPLETION OF THE ENGINEERING DATA TRANSMITTAL

(USE BLACK INK OR TYPE)

<u>BLOCK</u>	<u>TITLE</u>	
(1)*	EDT	● Pre-assigned EDT number.
(2)	To: (Receiving Organization)	● Enter the individual's name, title of the organization, or entity (e.g., Distribution) that the EDT is being transmitted to.
(3)	From: (Originating Organization)	● Enter the title of the organization originating and transmitting the EDT.
(4)	Related EDT No.	● Enter EDT numbers which relate to the data being transmitted.
(5)*	Proj./Prog./Dept./Div.	● Enter the Project/Program/Department/Division title or Project/Program acronym or Project Number, Work Order Number or Organization Code.
(6)*	Cognizant Engineer	● Enter the name of the individual identified as being responsible for coordinating disposition of the EDT.
(7)	Purchase Order No.	● Enter related Purchase Order (P.O.) Number, if available.
(8)*	Originator Remarks	● Enter special or additional comments concerning transmittal, or "Key" retrieval words may be entered.
(9)	Equipment/Component No.	● Enter equipment/component number of affected item, if appropriate.
(10)	System/Bldg./Facility	● Enter applicable system, building or facility number, if appropriate.
(11)	Receiver Remarks	● Enter special or additional comments concerning transmittal.
(12)	Major Assm. Dwg. No.	● Enter applicable drawing number of major assembly, if appropriate.
(13)	Permit/Permit Application No.	● Enter applicable permit or permit application number, if appropriate.
(14)	Required Response Date	● Enter the date a response is required from individuals identified in Block 17 (Signature/Distribution).
(15)*	Data Transmitted	
	(A)* Item Number	● Enter sequential number, beginning with 1, of the information listed on EDT.
	(B)* Document/Drawing No.	● Enter the unique identification number assigned to the document or drawing being transmitted.
	(C)* Sheet No.	● Enter the sheet number of the information being transmitted. If no sheet number, leave blank.
	(D)* Rev. No.	● Enter the revision number of the information being transmitted. If no revision number, leave blank.
	(E) Title or Description of Data Transmitted	● Enter the title of the document or drawing or a brief description of the subject if no title is identified.
	(F)* Approval Designator	● Enter the appropriate Approval Designator (Block 15). Also, indicate the appropriate approvals for each item listed, i.e., SQ, ESQ, etc.
	(G) Reason for Transmittal	● Enter the appropriate code to identify the purpose of the data transmittal (see Block 16).
	(H) Driginator Disposition	● Enter the appropriate disposition code (see Block 16).
	(I) Receiver Disposition	● Enter the appropriate disposition code (see Block 16).
(16)	Key	● Number codes used in completion of Blocks 15 (G), (H), and (I), and 17 (G), (H) (Signature/Distribution).
(17)	Signature/Distribution	
	(G) Reason	● Enter the code of the reason for transmittal (Block 16).
	(H) Disposition	● Enter the code for the disposition (Block 16).
	(J) Name	● Enter the signature of the individual completing the Disposition 17 (H) and the Transmittal.
	(K)* Signature	● Obtain appropriate signature(s).
	(L)* Date	● Enter date signature is obtained.
	(M)* MSIN	● Enter MSIN. Note: If Distribution Sheet is used, show entire distribution (including that indicated on Page 1 of the EDT) on the Distribution Sheet.
(18)	Signature of EDT Originator	● Enter the signature and date of the individual originating the EDT (entered prior to transmittal to Receiving Organization). If the EDT originator is the cognizant engineer, sign both Blocks 17 and 18.
(19)	Authorized Representative for Receiving Organization	● Enter the signature and date of the individual identified by the Receiving Organization as authorized to approve disposition of the EDT and acceptance of the data transmitted, as applicable.
(20)*	Cognizant Manager	● Enter the signature and date of the cognizant manager. (This signature is authorization for release.)
(21)*	DDE Approval	● Enter DOE approval (if required) by signature or control number that tracks the approval to a signature, and indicate DOE action.

*Asterisk denote the required minimum items check by Configuration Documentation prior to release; these are the minimum release requirements.

FINAL DESIGN REVIEW REPORT FOR K BASIN DOSE REDUCTION PROJECT

L. D. Blackburn
ICF Kaiser Hanford Company, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-87RL10930

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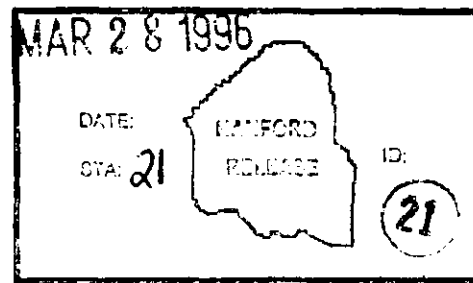
Abstract: The strategy for reducing radiation dose originating from radionuclides absorbed in the K East Basin concrete is to raise the pool water level to provide additional shielding. This report documents a final design review for cleaning/coating basin walls and modifying other basin components where appropriate. The conclusion of this review was that the documents developed constitute an acceptable design for the Dose Reduction Project.

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Karen A. Noland 3/28/96

Release Approval Date



Approved for Public Release

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**FINAL DESIGN REVIEW REPORT
FOR
K BASIN DOSE REDUCTION PROJECT**

1.0 INTRODUCTION

A major source of radiation above the water level in the 105 K-East Basin is the radionuclide inventory absorbed into the concrete walls. The current strategy for reducing radiation dose is to raise the water level in the basin. The concrete above the present water level must be coated with a material that will prevent absorption of radionuclides into the newly submerged portion of the wall. Early work on dose reduction identified design concepts that did not involve raising the water level. Project plans and documents were based on removal of significant thickness of concrete both above and below the water line, followed by application of coating to prevent reabsorption of radionuclides. Only recently have all the issues related to raising the water level been resolved in favor of that strategy. This approach for dose reduction was reported in *Preliminary Design Review Report for K Basin Dose Reduction Project*, WHC-SD-SNF-DRR-004 Rev. 0. The final design review reported here was conducted to ensure that project design documentation was complete and adequate.

2.0 SCOPE

The documents reviewed are identified in the List of Documents appended to this report. Copies of the documents are retained in K Basin Project files.

This review covered the cleaning and coating of the basin walls above the present water level, and the design of an extension of the cartridge filter pit wall to prevent overflow of basin water into the pit. Design of equipment for the clean and coat task was addressed in separate reviews conducted in parallel with the present one. Results of those reviews are documented in *Conceptual Design Review Report for K Basin Dose Reduction Project Clean and Coat Task*, WHC-SD-SNF-DRR-003, Rev. 0 and in *Final Design Review Report for K Basin Dose Reduction Project Clean and Coat Task*, WHC-SD-SNF-DRR-005, Rev. 0. Activities covered in those reports are not included here. Modifications to skimmer weirs and weasel pit isolation screen are necessary before raising the water level, but design of these modifications is not within the scope of this review.

3.0 SUMMARY

The design review process included individual review of documentation by committee members followed by a Design Review Meeting held on February 22, 1996. At the Design Review Meeting, all comments submitted by committee members and dispositions proposed by the design team were reviewed and discussed, as necessary. The action items from the Preliminary Design Review were reviewed and completed items were identified as closed. A design review checklist was completed. Two checklist questions answered "No" are covered by action items. Checklist questions A.9 and C.3 will be addressed in Items 51 and 68, respectively, of the Action Item Data Base (Appendix E). The conclusion of the meeting was that, subject to completion of items identified in either the action item list provided herein or the action item data base, the design documentation is fully acceptable for Dose Reduction Project activities.

4.0 DOCUMENTATION

The documentation provided as part of this report includes:

List of Documents that were reviewed (Appendix A);

Copy of completed Design Review Checklist (Appendix B);

List of Design Review committee members (Appendix C);

Copies of Review Comment Records generated by committee members (Appendix D);

Status of Preliminary Design Review comments in the Action Item Data Base (AIDB) (Appendix E).

List of Action Items that should be addressed in completing design documentation (Appendix F);

Meeting minutes for Design Review Meeting (Appendix G).

APPENDIX A

LIST OF DOCUMENTS REVIEWED

Numbered Documents

ECN 190567 to and original of *Functions and Requirements for the 105 K-East Basin Dose Reduction Project*, WHC-SD-SNF-FRD-001, Rev. 0.

Project Management Plan for Project A.8, Loadout Dose Management, WHC-SD-SNF-PMP-007, Rev. 0.

Design Review Report for the 105 K-East Basin Dose Reduction Concept, WHC-SD-SNF-DRR-002, Vol. 1, Rev. 0.

Conceptual Design Review Report for K Basin Dose Reduction Project Clean and Coat Equipment, WHC-SD-SNF-DRR-003.

Preliminary Design Review Report for K Basin Dose Reduction Project, WHC-SD-SNF-DRR-004.

Dose Reduction Cleaning and Coating Basin Walls, Waste Management Plan WMP-01-96.

Dose Reduction Extension of Tech View Pit Wall, Waste Management Plan WMP-02-96.

ECN 190566, direct revision of *Specification for 105 K East Basin Dose Reduction Project Decon and Seal Task*, WHC-S-0375, Rev. 0.

ECN 190564 to Drawing H-1-34692, Rev. 1, Sh. 1. (Coating Installation)

ECN 611951 to Drawing H-1-34710, Rev. 1, Sh. 1. (Cartridge Filter Pit Dam Installation) and ALARA Review Meeting Minutes.

WHC Internal Memo 01880-95-104, Categorically Excluded Cleaning and Coating of K-East Basin Walls, 100 K Area, Hanford Site, Richland, Washington (author: R. H. Engelmann, NEPA Services).

WHC Internal Memo 8M730-RLS-95-014, KE-Basin Dose Reduction by Cleaning, Coating, and Raising the Water Level (author: R. L. Simons, Nuclear Physics and Shielding).

Modification 1 of Purchase Order MDK-XVC-406988 and Revision 1 of Statement of Work.

Skimmer Weir Design Drawing H-1-34741, Sheets 2 and 3 (Unreleased).

Informal Documents

Washington Department of Health (WDOH) Briefing and Approval

Issues and Responses

Schedule

Cost Estimate

Clean and Coat Process Flow Diagram

Cartridge Filter Pit Dam Process Flow Diagram

Design Review Checklist

In answering the checklist questions, a "No" answer should require the preparation of a written comment per the Design Review guidelines.

	YES	N O	N/ A
A. GENERAL DESIGN			
Does the design comply with good design practices?			
1. Are functional requirements defined and really necessary?	✓		
2. Can any requirements be relaxed?			✓
3. Has existing equipment been evaluated for use, modification, or design ideas?	✓		
4. Were alternate design approaches considered?	✓		
5. Is design everly complicated ^{simple} ?	✓		
6. Does cost or quantity justify a value engineering analysis?			✓
7. Are assumptions made reasonable?	✓		
8. Are remote handling features required?	✓		
9. Have calculations been documented and checked?		✓	
10. Have prior design review comments been addressed?	✓		
11.			
12.			
13.			
B. ARRANGEMENT			
Does the design meet arrangement requirements?			
1. Component size limitations?	✓		
2. Component accessibility?	✓		
3. Adequate clearance between components?	✓		
4. All current or future attachments considered?	✓		
5. Complies with reference design and requirements?	✓		
6. Is it consistent with the application?	✓		

AIDB
Item 51

DESIGN REVIEW CHECKLIST

		YES	N O	N/ A
7.	Stack-up and tolerance studies performed?			✓
8.				
9.				
10.				
C. RADIOLOGICAL				
Does the design meet the radiological requirements?				
1.	Minimize radiation levels?	✓		
2.	Contain contamination?	✓		
3.	Shielding provided and verified?		✓	
4.	Meet facility design criteria of Article 527 of (XXXXXX)?			✓
5.	Decontamination?	✓		
6.				
7.				
8.				
D. NUCLEAR SAFETY				
Does the design comply with nuclear safety requirements?				
1.	Is there a process plan per (XXXXXXXX)?			✓
2.	Does the equipment fall within a group type per (XXXXXXXX)?			✓
3.	Are materials identified and evaluated for moderation, reflection, etc.?	✓		
4.	Will the fuel ^{not} be crushed?			✓
5.	Will isolation be provided?			✓
6.	Will it meet WHC Double Accident Criteria?			✓

AIDB
Item 6!

DESIGN REVIEW CHECKLIST

		YES	N O	N/ A
7.				
8.				
9.				
E. OPERATION				
Does the design comply with operational needs and limitations?				
1.	Reliability provisions?	✓		
2.	Utilized preferred or commonly used components?	✓		
3.	Provide fabrication and as-built drawings?	✓		
4.	Provide operating instructions?			✓
5.	Safety provisions?	✓		
6.	Meet intended use and foreseeable misuse?	✓		
7.	Provide interlocks/safety devices?			✓
8.	Operation and maintenance provisions?	✓		
9.	Simple operations?	✓		
10.	Understandable and operable controls?			✓
11.	Spare parts availability?			✓
12.	Environment effects of:			
a.	Extremes of service voltages?			✓
b.	Extremes of service water hardness?			✓
c.	Extremes of service pressure?			✓
d.	Extremes of service temperature?			✓
e.	Extremes of external vibration?			✓
f.	Extremes of external shock?			✓
g.	Extremes of ambient temperature?	✓		

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
h. Extremes of humidity?			✓
i. Foreign material (sand, grit, oil, lint, dirt, etc.)?			✓
j. Corrosive ambients (water, acids, etc.)?			✓
k. Extremes of external magnetic fields?			✓
l. Weather extremes?			✓
m. Radio interference?			✓
n. Nuclear radiation?			✓
o. Supplementary products (detergents, bleaches, oils, grease, etc.)?			✓
13. Effect on environment of:			
a. Appearance?			✓
b. Noise?			✓
c. Odor?			✓
d. Temperature?			✓
e. Vibration?			✓
f. Light?			✓
g. Radiation?			✓
h. Exhaust?			✓
i. Space?			✓
j. Packaging disposal/recycle?			✓
k. Final product disposal/recycle?			✓
1. Material content?			
2. Hazardous materials?			
3. Lubricants?			
14. Human engineering factors?			✓
15.			

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
16.			
17.			
18.			
F. FAILURE			
Does the design account for failure modes?			
1. Failure modes identified?	✓		
2. How failures detected?			✓
3. Compensating factors for failures?			✓
4. Recovery from failures?			✓
5. Repairable?			✓
6. Is a Failure Mode and Effect Analysis needed?			✓
7.			
8.			
9.			
G. RELIABILITY			
Does the design meet reliability requirements?			
1. Maximum stresses within limits through full range of travel, load, voltage, etc.?	✓		
2. Derating utilized?			✓
3. Simplicity optimized?	✓		
4. Failure modes of critical elements analyzed?	✓		
5. Optimum use of standard proven parts?	✓		
6. Correct current problems and complaints?	✓		

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
7. Similar design data considered?	✓		
8. Allowable stresses per (XXXXX)?	✓		
9.			
10.			
11.			
H. MATERIALS			
Does the design meet materials requirements?			
1. Allowable materials for specific function and (XXXXX)?	✓		
2. Prohibited materials per (XXXXX)?			✓
3. Corrosion resistance?	✓		
4. Cleanliness requirements?	✓		
5. Galling?			✓
6. Surface wear?			✓
7. Electrical/bearing/lubricants, etc. per (XXXXX)?			✓
8.			
9.			
10.			
I. INTERFACES			
Does the design comply with facility interface requirements?			
1. Will it fit through doors and openings?	✓		
2. Will it require support equipment and utilities?	✓		
3. Is there adequate visibility of operation?	✓		
4. Is there operation access?	✓		

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
5. Protection for fire, water space?			✓
6.			
7.			
8.			
J. MANUFACTURING			
Does the design minimize manufacturing problems by:			
1. Utilizing existing equipment for fabrication, finishing, assembly, calibration, testing, packaging, etc.?	✓		
2. Utilizing more efficient new processes, equipment, and facilities?	✓		
3. Avoiding hazardous operations?	✓		
4. Optimizing tool/piece costs?			✓
5. Permitting maximum standardization?			✓
6. Specifying tolerances consistent with acceptable processes and equipment?	✓		
7. Correcting or avoiding previous or current manufacturing problems?			✓
8. Minimizing operations requiring special skills or special attention?			✓
9. Clearly identifying critical parameters to be controlled during the procurement and manufacturing cycle?			✓
10. Specifying materials conforming to standards?	✓		
11. Being clearly and completely described on drawings?	✓		
12.			
13.			
14.			
K. QUALITY ASSURANCE			

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
Does the design provide for testing and quality assurance?			
1. Inspection and testing of fabrication?	✓		
2. Functional tests?			✓
3. Load tests?			✓
4. Special tests?			✓
5. Supplier test specification?			✓
6. Test documentation?			✓
7. Acceptance criteria?	✓		
8. Westinghouse inspection?			✓
9. Post installation tests?			✓
9. Post installation tests?			✓
10. Records and certifications?	✓		
11.			
12.			
13.			
L. INSTALLATION			
Does the design consider installation requirements?			
1. Is weight and size compatible with lifting equipment?	✓		
2. Are there lifting and handling aids?	✓		
3. Center-of-gravity identified?	✓		
4. Vendor responsibilities defined?			✓
5.			
6.			
7.			

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
M. PACKAGING			
Does the design minimize packaging, shipping, handling, and warehousing problems by:			
1. Utilizing standard packaging?			✓
2. Minimizing offsets, projections, etc. which require additional packing material?			✓
3. Withstanding applicable transportation tests?			✓
4. Considering shipping and warehousing environment?			✓
a. Shock?			✓
b. Vibration?			✓
c. Temperature extremes?			✓
d. Humidity extremes?			✓
e. Handling equipment?			✓
f. Sand and dust?			✓
5. Permitting shape and size of packaged product which would optimize rail car and truck loading?			✓
6. Providing clear handling instructions on outside of packaging?			✓
7. Considering disposal of used packaging material?			✓
8.			
9.			
10.			
N. LAWS AND SPECIFICATIONS			
Does the design comply with applicable laws and agency requirements?			

DESIGN REVIEW CHECKLIST

	YES	N O	N/ A
1. Does the product comply with applicable laws and agency requirements?			
a. State laws?	✓		
b. Federal laws?	✓		
2. Does the product comply with applicable agency standards or guidelines?			
a. Underwriters' lab?			✓
b. OSHA?	✓		
c. ANSI?	✓		
d. DOE?	✓		
e. NEMA?			✓
f. NEPA?	✓		
g. <i>DOH?</i>	✓		
h.			
i.			
3. Local requirements?			
a. Radiological Controls?	✓		
b. Nuclear Safety?			✓
c. Lifting and Handling?	✓		
d. Safety?	✓		
e. Fire Protection?			✓
f.			
g.			
h.			
i.			

APPENDIX C

**K BASIN DOSE REDUCTION PROJECT
FINAL DESIGN REVIEW**

COMMITTEE MEMBERS

L. D. Blackburn
L. E. Formo
W. H. Cloos
J. I. Diehl
W. A. Frier
R. G. Gant
D. O. Hess
W. J. Millsap

Chairman
ICF-KH Construction Forces
Operations
Operations Quality Assurance
Engineering (Design Authority)
Environmental
Operational Safety
ALARA

APPENDIX D
Review Comment Records

REVIEW COMMENT RECORD (RCR)	1. Date 2/13/96	2. Review No.
	3. Project No. A.8	4. Page 1 of 2

5. Document Number(s)/Title(s) 105 K E Basin Dose Reduction Project Final Desing Review	6. Program/Project/ Building Number SNF/A.8/105KE	7. Reviewer W. H. Cloos	8. Organization/Group K Basins Operations	9. Location/Phone 105KE/372-2853
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17. Comment Submittal Approval: Organization Manager (Optional)	10. Agreement with indicated comment disposition(s) Date <u>2-13-96</u>	11. CLOSED Reviewer/Point of Contact <u>W. H. Cloos</u> Date Author/Originator <u>Jim C. Ford</u>	Reviewer/Point of Contact Date Author/Originator
--	--	--	--

12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Hold Point	15. Disposition (Provide justification if NOT accepted.)	16. Status
1	There is a 6" dia. pipe at the east end of the dummy elev. pit about one foot above the water level. This pipe is on drawing H-1-34683 Piping plan I.	WHC	Assessment and verification will be conducted and documented in a preliminary job walk-down, modifications will be made if deemed required.	Open
2	Statement of Work page 6, 6.1.3 there are 3 rollup doors on the west side of the basin. There are 2 doors on the north side and one door on the east side of the outside.	WHC	Agreed, this information will be forwarded to Oceaneering for their information, however, this will not affect the contract between WHC and Oceaneering, and no further action will be taken.	Closed
3	Page 21, 9.3.4.9 Approved by the DOE filter test station operated by HEHF, is this right?	WHC	No, HEPA filtered vacuums for use in the basin requires approval form Vent and Balance, K Basin Rad Con Engineering, Industrial Hygiene, and K Basin Safety, however, this will not affect the contract between WHC and Oceaneering, and no further action will be taken.	Closed

D-2



WHC-SD-SNF-DRR-006
Rev. 0

REVIEW COMMENT RECORD (RCR)		1. Date		2. Review No.	
		2/13/96			
		3. Project No.		4. Page	
		A.8		2 of 2	
12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Hold Point	15. Disposition (Provide justification if NOT accepted.)		16. Status
4	Page 20, 9.3.3.3 Ph limits are 5.0 to 9.5.	WHC	Agreed, this information will be forwarded to Oceaneering for their information, however, this will not affect the contract between WHC and Oceaneering, and no further action will be taken.		Closed

D-3

REVIEW COMMENT RECORD (RCR)	1. Date 2/20/96	2. Review No.
	3. Project No. A.8	4. Page 1 of 1

5. Document Number(s)/Title(s) 105 K East Basin Dose Reduction Project Final Design Review	6. Program/Project/ Building Number A.8	7. Reviewer W. A. Frier	8. Organization/Group K Basins Cognizant Engineering	9. Location/Phone M0402/373-3946
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17. Comment Submittal Approval: Organization Manager (Optional) _____	10. Agreement with indicated comment disposition(s) 2/26/96 Date	11. CLOSED Date
	 Reviewer/Point of Contact  Author/Oriinator	Reviewer/Point of Contact _____ Author/Oriinator _____





12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Hold Point	15. Disposition (Provide justification if NOT accepted.)	16. Status
1.	Dose Reduction Project shall fund the issuance of an ECN to appropriate seismic analysis document, WHC-SD-NR-SA-024 to discuss the impact of raising the KE basin water level 18 in. (Section 13, ECN 190564, page 2 identified that the seismic analysis is affected. Appropriate seismic analysis document needs to be updated to reflect plant configuration).	WAF	Agreed.	Open
2.	Section 20, Dwg H-1-34741, Sht 2, Section E-E-- Replace brass with "Nitronic 60" (WHC-SD-SNF-DGS-001, Section 4.1.2 recommends "Nitronic 60" for underwater applications when fastening to stainless steel).	WAF	J.M. Kurta is the Design Authority for the skimmer system. C.P. Janett has been identified as the Design Agent in charge of the skimmer weir upgrade/modification task. This comment has been forwarded to them for consideration.	Open

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REVIEW COMMENT RECORD (RCR)	1. Date <p style="text-align: center;">2/7/96</p>	2. Review No.
	3. Project No. <p style="text-align: center;">A.8</p>	4. Page <p style="text-align: center;">1 of 2</p>

5. Document Number(s)/Title(s) Dose Reduction Project Final Design Review	6. Program/Project/ Building Number SNF/Dose Reduction/105KE	7. Reviewer Rick G. Gant	8. Organization/Group K Basins Standards and Requirments	9. Location/Phone MO401/22/373-3781
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17. Comment Submittal Approval: _____ Organization Manager (Optional)	10. Agreement with indicated comment disposition(s) x  _____ Date  Author/Originator	11. CLOSED x  _____ Date  Author/Originator
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12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Hold Point	15. Disposition (Provide justification if NOT accepted.)	16. Status
1	The Functions and Requirements document still does not have K Basin Stds. and Reqts. sign off as required by the Project Management Plan. (I believe this is an old comment.)	RGG	ECN 190567 to the Functions and Requirements changed the approval designator from "SQ" to "ESQ" and was reviewed and approved by Standards and Requirements.	Closed
2a	Waste Management Plan: The scope is stated to be work package 1K-95-476, a package for core drilling the walls. Suggest this be revised to cover the entire project or list the applicable work packages.	RGG	Both waste plans will be revised to reflect the correct package numbers (1K-95-475 for cleaning and painting, and 1K-95-1392 for the cartridge filter pit wall modification).	Closed
2b	Waste Management Plan: "BIO-DUR 561 Epoxy and Curing agent in a premixed form" is stated to be a low level waste. This is confusing in that the Curing agent, before mixing, is a regulated waste.	RGG	The waste referred to is not necessarily Bio-Dur, but the hoses, applicators, brushes, etc. after use. These items may have cured Bio-Dur on them.	Closed

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REVIEW COMMENT RECORD (RCR)	1. Date 2/7/96	2. Review No.
	3. Project No. A.8	4. Page 2 of 2

12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Hold Point	15. Disposition (Provide justification if NOT accepted.)	16. Status
2c	Waste Management Plan: The waste management plan does not have any provision for disposal of the Curing agent (unused product or used (unmixed) product as a regulated waste. (Perhaps this could be dispositioned by indicating that this type of waste is not anticipated and that unused product will be pumped back into the product can for reuse/recycling, etc.)	RGG	The Restrictions section of the plan states that if other material comes into contact with curing agent, we are to contact OA&WH for guidance on proper disposal.	Closed
2d	Waste Management Plan: There is no author of the plan, no author sign off and no Environmental approval of the plan.	RGG	The author is Rod Jochen, who is not a signatory on the JCS package or the Final Design Review, and the environmental sign off will be on the JCS package and the Final Design Review Package.	Closed

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APPENDIX E
Action Item Data Base Status

Project AIDB

DRP_AIDB.XLS

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
PROJECT PRELIMINARY DESIGN REVIEW COMMENTS										
29	PROJ-PDR	RCR.DOH.1	DO HESS	12/14/95	The statement of work and/or the Design & Seal specification should have a criteria statement saying that rotating/moving parts shall be guarded/protected per OSHA criteria and Electrical components shall be UL or FM listed.	ACCEPTED The SOW, Section 3.0 (OSHS Title 29, CFR Labor Part 1910) specifies the machine guarding requirements. WHC-5-0378, Section 3.0 (DOE-RL 4430.1A Section 16) covers the electrical requirements for Hanford.	Fordham	No action required	Closed	1/17/96
30	PROJ-PDR	RCR.DOH.2	DO HESS	12/14/95	There is a potential criticality safety issue/what if relating to failure of the equipment and dropping all or part of the equipment into the basin on the stored fuel.	ACCEPTED This is covered by previous analyses for fuel/canister drops and was revisited for proposed core drilling of the basin walls project. A letter will be obtained from the K-Basin Criticality Safety Representative indicating that this accident is bounded by existing documents.	Jones		Open	
31	PROJ-PDR	RCR.DOH.3	DO HESS	12/14/95	There is an additional crit. safety concern (as well as a potential water chemistry concern) relating to a potential spill of the BIO-DUR 560 materials (either as the final product mix or its preliminary components) into the basin water. This potential spill raises two questions: are any of the components or final product more neutronically reactive than water; and what is the effect of any spilled final product on canister cleaning and fuel recovery? Also, would a spill of the precursor materials create a basin water chemistry problem (e.g. cause filter clogging, IXM blinding, etc.)?	ACCEPTED Steve Burke will evaluate the coating material and document his findings. The USQ screening and Hazard Classification will evaluate and document potential accident scenarios, including the effects of spilled coating material on the open fuel and canisters.	Jones		Open	
32	PROJ-PDR	RCR.ID.GEN	J.DIEHL	12/14/95	I realize that I do not have all of the background information since I was just put on this project last week, but why are we doing a preliminary design review on a project that's been roughly half completed?	This is a 50% PDR.	Fordham	No action required	Closed	1/17/96

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Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTS	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
33	PROJ-PDR	RCP_ID.1	J. DIEHL	12/14/95	Specify coatings per N-S-0375. have not found where Coarsest address cracks, ledges and holes after surface preparations.	ACCEPTED The intent of this requirement was to address damage caused by aggressive methods for cleaning concrete (i.e. scabbling or scabblolite) that have the potential to cause damage to the basin wall. The coating material proposed by Coarsening requires only a light surface cleaning via light brushing and damage is not anticipated. However the cleaning method will be verified prior to deploying the equipment into the basin. EON 190568 will revise the Specification to reflect this method of cleaning.	Jones	See EON 190568	Closed	1/19/96
34	PROJ-PDR	RCP_ID.2	J. DIEHL	12/14/95	Question on the SOW: Submittals (short) are as schedule date when the submittals are required.	ACCEPTED The schedule for Document submittals were required in the Request for Proposals.	Fordham		Closed	1/17/96
35	PROJ-PDR	RCP_ID.3	J. DIEHL	12/14/95	Did we specify what the vendor QA manufacturing was supposed to meet?	ACCEPTED No. (see SOW Section 15) the QA manual was submitted with the vendors response to the RFP. The manual was reviewed for compliance to Hanford's requirements during the RFP evaluation and selection process by R.E. Lacey.	Fordham		Closed	1/17/96
36	PROJ-PDR	RCP_IDB.1	LD BLACKBUR	12/9/95	EON 190566, Continuation Sheet, Task Section 5.6: The document ends at Section 5.6; change should be to Section 5.67	AGREED	Jones	See EON 190566	Closed	1/19/96

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Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
37	PROJ-PDR	RCR LDB 2	LD BLACKBUR	12/8/95	WHC-S-0375 Section 4.1. Items of the project documentation reviewed discussed how the ability to repair concrete damaged by chipping is to be demonstrated. If demonstration is to be provided by Clean and Coat ATP, will the use of dummy concrete panels exhibit the same damage as K Blush concrete?	ACCEPTED The intent of this requirement was to address damage caused by aggressive methods for cleaning concrete (e.g. etching or sandblasting) that have the potential to cause damage to the basin wall. The coating material proposed by Oceanizing requires only a light sandblasting cleaning (e.g. light brushing and damage is not anticipated). However the cleaning method will be validated prior to applying the equipment into the basin.	Jones	See ECR 190588	Closed	1/15/96
38	PROJ-PDR	RCR LDB 3	LD BLACKBUR	12/8/95	ECN 190564, Description of Change: The project documentation reviewed did not require demonstration that walls be "cleared of scum, scales, dirt, water deposits, and biological growth." The cleaning change should better state "...cleared by wet brushing."	ACCEPTED The cleaning requirements are specified in WHC-S-0375 Section 4.0 which will be revised to reflect the cleaning method proposed. ECR 190584 will be revised to reference the specification for these requirements.	Husain	See ECR 190584	Closed	2/2/96
39	PROJ-PDR	RCR LDB 4	LD BLACKBUR	12/8/95	ECN 190594, Description of Change: The description of the Clean and Coat ATP given in the briefing indicated that the clean and coat units would begin a few inches above the water line (2" think) rather than at the water line as indicated in the ECR.	ACCEPTED ECN 190594 will be revised to reflect the tolerance of 1/2" to 2" above the basing water line. Project documentation will also be revised to reflect this change.	Husain	See ECR 190594	Closed	2/2/96
40	PROJ-PDR	RCR LDB 5	LD BLACKBUR	12/8/95	ECN 190564, Justification, in the third sentence change to "The cleaning and sealing of the concrete walls, followed by raising the water level, will result."	Agreed	Husain	See ECR 190564	Closed	2/2/96
41	PROJ-PDR	RCR LDB 6	LD BLACKBUR	12/8/95	ECN 611951, Description of Change: same comments as 3 and 4.	ACCEPTED Consideration is being given to self-place SST concrete formwork that would not require coating. If the existing concrete in the basin below pit is already coated, ECR 611951 will be revised to reflect this new concept.	Husain	See ECR 611951	Closed	2/2/96
42	PROJ-PDR	RCR LDB 7	LD BLACKBUR	12/8/95	ECN 611951, Justification: change to Extension of concrete wall as required to	Agreed	Husain	See ECR 611951	Closed	2/2/96

Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTS	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
43	PROJ-PDR	RCR RGG 1	RG GANT	12/13/96	Some of the supporting documentation (e.g., FAR, PMP, CORR) provided did not include the EDT sign-off sheets, so it is difficult to ascertain who actually reviewed the documents.	ACCEPTED EDT's will be included with the controlled documents at the Final Design Review.	Creed	Closed	Closed	1/17/98
44	PROJ-PDR	RCR RGG 2	RG GANT	12/13/96	The Project Management Plan indicates in Figure 2 that an Environmental approval is required for the FAR documents. Yet, the FAR document title page indicates an impact level of "SQ", i.e., no "E". (See also comment no. 3)	ACCEPTED The Project Management Plan is being reviewed by the Regulatory Compliance Organization. The review will determine the K Basin required signatures.	Fordham	Closed	Closed	1/17/98
45	PROJ-PDR	RCR RGG 3	RG GANT	12/13/96	Raises the Water Level Issues document issues in section 2.2 that "NOC authorizes well cleaning." In fact, the NOC only authorizes cleaning by the use of a high pressure water jet. Alternative cleaning processes are not yet approved by DOH and must be brought to their attention and be approved prior to the start of work.	ACCEPTED Brushing has been approved by the WOOH on 1/9/98.	Creed	Closed	Closed	1/17/98
46	PROJ-PDR	RCR RGG 4	RG GANT	12/13/96	The documentation does not address whether coating without any cleaning has been considered. Such a process would be extremely attractive in that lower costs and lower doses would be incurred.	ACCEPTED Overseering has provided justification for the cleaning method selected in their response to the REP (page 2-7). Provisions have been provided in the Clean and Coat Specification (WHC-S-0375 4.8) to ensure this requirement if the vendor can demonstrate that surface preparation is not required.	Fordham	Closed	Closed	1/17/98

Project AIDB

ITEM NUMBER	ORIGN	DOCUMENT	COMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
47	PROJ-PDA	RCR RSG 5	RG GANT	12/3/95	<p>The Design and Seal specification, WHC-S-0375, paragraph 5.1 requires the sealant shall be able to withstand periodic cleaning with wire brushes or steam. 5.4.) Is it feasible to expect the coating to meet this requirement, especially for the wire brushes? 5.b.) Is the requirement necessary for these two processes? A satisfactory coating would seem to not need such an aggressive cleaning process to be able to be decontaminated. 5.c.) Steam cleaning would seem to be an unlikely cleaning process that would be used in the basin.</p>	<p>ACCEPTED</p> <p>5 a) Yes. The WFPSS report read Bio-Dur as "best material tested" and is a Tel-Con with R. F. Creed and Don A. Hill, author of the WFPSS report. Don realized that Bio-Dur is a top quality product better than any others they have used or tested.</p> <p>5 b) No. However the Vendor has proposed a coating that can withstand the cleaning processes required in the specification.</p> <p>5.c) Agreed.</p>	Creed	Closed		1/17/96

Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
48	PROJ-PDR	RGR RGG 6	ING GANT	12/13/96	The Statement of Work document has conflicts in section 9.3.4.11. DAC values at K Basins are applied by assuming all alpha activity at Pu-239 and all beta-gamma activity is Sr-90. There are published values in 10 CFR Part 835 for Pu-239 (alpha) and Sr-90 (beta-gamma) that become our "DAC limits". Clarification is needed in whether the requirement is to meet these DAC levels or ten percent of these DAC levels. I believe the intent of the last sentence is that air quality shall be maintained below 10 percent of the DAC limits as applied at K Basins. The requirements does not specify the area of measurement. If the exhaust air from the clean up process 10 percent of DAC levels it will not be acceptable. On the other hand, this requirement would be suitable if the immediate work area of the cleanout equipment.	ACCEPTED SCM 9.3.4.11 will be revised and made available prior to the FDR	Furtham	See SCM/Rev-1	Closed	1/17/98
49	PROJ-PDR	RGR RLS.1	RL SIMONS	12/14/96	No discussion of vacuumed waste or the estimate of rate of accumulation of radioactive debris.	ACCEPTED The projects Waste Plan will document these estimates, and will be available for review at the FDR.	Jones	Closed per DRP-FDR Committee	Closed	2/22/98
50	PROJ-PDR	RGR RLS.2	RL SIMONS	12/14/96	Will there be adequate view of the coating to determine if it is being applied uniformly and of adequate thickness?	ACCEPTED A vision and lighting system will be provided with the clean and coat equipment to monitor the application. Details regarding the system and the criteria for determining the coatings adequacy will be provided at the FDR.	Creed	Internal Memo RCF-96-007	Closed	1/13/98
51	PROJ-PDR	RGR WAF.1	WA FRIER	1/8/98	The structural analysis for the cartridge filler pit dam should be documented in ECN 511951	Agreed. ACCEPTED	Husan	Calculations require the same level of configuration control as the ECN Calc's will be released w/ change ECN	Open	

Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
52	PROJ-PDR	RCR-WAF-2	WA FRIER	1/2/98	WMC-SD-SNF-PMP-007, Project Management Plan Section 2.1, first sentence, change surrounding pits to slurry elevator pit.	REJECTED This statement describes the entire Dosem Reduction Project, including pipe hydrotesting, ALADA team, raising the water level and tanks associated with raising the water level.	Closed	Closed		1/17/98
53	PROJ-PDR	RCR-WAF-3	WA FRIER	1/2/98	I would like to see a copy of the report entitled Design of Structures for Missile Impact, Section 3.0, and Report BC-TOR-9A referenced in the Design Analysis Report for the cartridge filter pit item.	ACCEPTED Agreed, a copy will be provided to me by 1/15/98.	Husain	Closed per official msg from WAF 2/23/98		2/23/98
54	PROJ-PDR	RCR-WAF-4	WA FRIER	1/2/98	Review the Statement of Work to include the Slurry Elevator Pit into the scope statement.	ACCEPTED Agreed, SOW Section 2.0 will be revised to include the slurry elevator pit in the scope.	Fordham	Closed	See SOW Rev. 1	1/17/98
55	PROJ-PDR	RCR-WHC-1	WH CLOOS	12/12/95	Issue number 1.4.3, the north lead out pit does leak, this would flood the old clarifier pumps in the north lead out pit.	ACCEPTED Verification will be conducted to assess the effects on the equipment and components in the pit. The findings will be documented in a preliminary job walk-down.	Husain	Closed per official msg from W.C. Cloos 2/25/98		2/25/98
56	PROJ-PDR	RCR-WHC-2	WH CLOOS	12/12/95	Issues number 1.3, Operations would like to see skimmer weirs that would hold throw away nylon bags, to make cleaning the weirs easy.	ACCEPTED J.M. Kurta is the Design Authority for the skimmer system. C.P. Janett has been identified as the Design Agent in charge of the skimmer wear upgrade/modification task. This comment will be forwarded to them for consideration.	Kurta	Open		
57	PROJ-PDR	RCR-WHC-3	WH CLOOS	12/12/95	Verify that the overflow weirs on the north side of the basin are plugged, or above the upper water line limit.	ACCEPTED Verification will be conducted and documented in a preliminary job walk-down. The findings will be disclosed at the FDR.	Husain	Closed per official msg from W.C. Cloos 2/25/98		2/25/98

Project AIDB

6-E

ITEM NUMBER	ORIGN	DOCUMENT	COMMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
58	PROJ-PDR	RCR.WJM.1	WJ MILLSAP	12/18/95	A determination of the optimized basin static background dose rate needs to be made; this will determine what the end-point of the dose reduction project should be. This determination should be based on these factors: the present estimate of the collective dose to be incurred throughout the project from the static background radiation field; the present monetary value of collective dose (\$30,000/person-rem); and the estimated cost of options to reduce exposure to the background radiation field.	ACCEPTED A Supporting Document (SD) is being generated that documents the current condition and conditions prior to hydrolysis. This SD serves as the baseline for dose reduction efforts, and will be updated as changes in the ambient conditions occur. After raising the water has been completed, an optimization study, taking into account all project work scheduled to be completed in the KE Basin, will be conducted that will identify options and make recommendations for future dose reduction efforts, based on designs available at that time. This will be completed by June 96.	Creed		Open	
59	PROJ-PDR	RCR.WJM.2	WJ MILLSAP	12/18/95	All aspects of the dose reduction project should be consolidated under a single point control. If this is not the case, the project may not be well coordinated and the expected dose reduction not achieved.	ACCEPTED R.F. Creed is the Project Engineer and will ensure the proper coordination of all aspects of the project, including the skimmer weir upgrades.	Creed		Closed	1/17/96
60	PROJ-PDR	RCR.WJM.3	WJ MILLSAP	12/18/95	Concerning the skimmer weir upgrades: Bill Mills has experience with a skimmer system at a pool in Idaho, and he was part of the initial look at the K-Basin skimmer system. His knowledge and experience should be used in the designing and installing the upgraded system at K-East.	ACCEPTED J.M. Kurta is the Design Authority for the skimmer system. C.P. Janett has been identified as the Design Agent in charge of the skimmer weir upgrade/modification task. This comment will be forwarded to them for consideration. The Dose Reduction Project is purchasing the material and fabrication services for this task.	Kurta		Open	
61	PROJ-PDR	RCR.WJM.4	WJ MILLSAP	12/18/95	Concerning the skimmer weir upgrades: A single, comprehensive upgrade should be planned and implemented; an incremental upgrade path would likely result in needless radiation dose received.	ACCEPTED See comment disposition RCR.WJM.3	Kurta		Open	
62	PROJ-PDR	RCR.WJM.5	WJ MILLSAP	12/18/95	Concerning the skimmer weir upgrades: It would reduce the installation dose if, consistent with a useful upgrade, as much of the old system as practical is used.	ACCEPTED See comment disposition RCR.WJM.3	Kurta		Open	
63	PROJ-PDR	RCR.WJM.6	WJ MILLSAP	12/18/95	Concerning the skimmer weir upgrades: Consider using a floating system that skims the small stuff off the surface augmented with a plan to fish out the larger objects with a pole.	ACCEPTED See comment disposition RCR.WJM.3	Kurta		Open	

Project AIDB

ITEM NUMBER	ORIGIN	DOCUMENT	COMMENTER	DATE ENTERED	DESIGN REVIEW COMMENT	ACTION / DISPOSITION	RESPONSIBLE	STATUS	Open / Closed	DATE COMPLETE
64	PROJ-PDR	RCR.WJM.7	WJ MILLSAP	12/18/95	Concerning the cartridge filter pit dam: Consider using a stainless steel form to pour a concrete dam; this form would be left in place after the concrete cures. This would make a stronger dam and would reduce the installation dose since the form will not have to be removed. An initial review by Kaiser construction, Basin radcon, Basin ALARA, and project ALARA showed this to be the best option (of the three proposed).	ACCEPTED ECN 811951 will be revised to reflect the concept described in this comment.	Husain		Closed	11/17/96
65	PROJ-PDR	RCR.WJM.8	WJ MILLSAP	12/18/95	Concerning the cartridge filter pit dam: If a concrete dam is poured, the concrete scabbling and hole drilling need to be done without respirators if at all possible in order to keep the collective dose down. (HEPA-filtered concrete scabbling tools are available from Nilfisk and Pentax.)	ACCEPTED Engineered controls, if at all practical, will be used to reduce or eliminate the use of respiratory protection. Methods considered will be reviewed, evaluated, and documented in the ALARA planing.	Husain		Open	
66	PROJ-PDR	RCR.WJM.9	WJ MILLSAP	12/18/95	Concerning the cartridge filter pit dam: Kaiser needs the time and opportunity to practice with any new tools (such as scabblers) before doing the basin work.	ACCEPTED Training will be provided on the use of tools, equipment, and methods that are not familiar to the crafts and operators prior to commencing in basin work activities.	Husain		Open	
67	PROJ-PDR	RCR.WJM.10	WJ MILLSAP	12/18/95	Concerning the cartridge filter pit dam: If a concrete dam is poured, try to find a concrete-to-concrete bonding agent that does not require the use of a mask for chemical protection purposes.	ACCEPTED A practical effort will be made to find a bonding agent that will not require a mask.	Husain	Closed per Pat Hickey cMail 1/23/96	Closed	1/23/96
68	PROJ-PDR	RCR.WJM.11	WJ MILLSAP	12/18/95	Concerning the cartridge filter pit dam: There are some hot pipes nearby and some thought needs to be given to shielding.	ACCEPTED Additional temporary shielding will be installed, if it is cost effective to do so, to keep the radiological dose rate ALARA. The details will be reviewed, approved, and documented in the safety and ALARA reviews of the project.	Husain		Open	

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APPENDIX F

ACTION ITEM LIST

1. Conduct a preliminary job walk-down to verify and assess a six-inch diameter pipe at the east end of the dummy elevator pit about one foot above the water level. The pipe is shown on drawing H-1-34683. Make modifications as required.
2. Provide an Engineering Change Notice to the seismic analysis document WHC-SD-NR-SA-024 to discuss the impact of raising the K-East Basin water level eighteen inches.
3. Forward to the design agent for the skimmer weir upgrade/modification the information that WHC-SD-SNF-DGS-001 recommends Nitronic 60 for underwater applications when fastening to stainless steel. This information suggests replacing brass with Nitronic 60 on Drawing H-1-34741, Sht. 2, Section E-E.

APPENDIX G

K BASIN DOSE REDUCTION PROJECT FINAL DESIGN REVIEW

MEETING MINUTES

The Final Design Review Meeting for the K Basin Dose Reduction Project was held on February 22, 1996 in the M0293 conference room at 2 p.m. Those in attendance were:

- *L. D. Blackburn, Chairman
- *W. J. Millsap
- *W. H. Cloos
- *R. G. Gant
- *J. I. Diehl
- R. F. Creed
- J. C. Fordham
- *D. O. Hess
- *L. E. Formo
- F. W. Moore
- K. M. Jones

* Committee members

The agenda for the meeting was a review of all comments and dispositions documented on Review Comment Record (RCR) forms, review of the status of action items from the Preliminary Design Review, and completion of the design review checklist. The final RCRs resulting from meeting discussions and the completed design review checklist will be included in the design review report.

Discussions of the comments did not reveal any major items of concern. The conclusion of the committee was that the existing documents constitute an acceptable design for the Dose Reduction Project.