

Westinghouse
Savannah River Company
Aiken, SC 29808



ESH-FSS-98-0095

April 12, 1998

Mr. John J. Schnabel, P. E.
Facility Engineering Section
Division of Solid Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

Dear Mr. Schnabel:

REPAIR PLAN FOR THE Z-AREA SALTSTONE VAULT 4, CELL A (U)

Westinghouse Savannah River Company is sending you a proposed plan, stamped by a P. E., (see attachment) for sealing the gap in the Z-Area Saltstone, Vault 4, Cell A roof. As we discussed earlier, this gap between the vault roof and the north wall of Cell A was caused by intrusion of rainwater through hairline cracks in the roof. The task of sealing the hairline cracks in the roof had been initiated prior to discovery of the gap in the roof and the sealing of those hairline cracks is nearing completion.

The repair plan for the gap in the Vault 4, Cell A roof is very similar to the repair plan which SCDHEC approved previously for Vault 1, Cell A. Details of how the gap will be filled and repaired are included in the attached repair plan.

According to our conversation, we are planning to proceed with the attached repair plans. Upon review, if you have any recommendations or concerns please let us know. If you have any questions or if I can be of further help, please let me know.

Sincerely,

A handwritten signature in cursive script that reads 'Larry C. Haney'.

Larry C. Haney
Environmental Protection Department

cc: (without attachment)*
Myra Reece, SCDHEC-Aiken
Kurt Zollinger, SCDHEC-Aiken
Anatia Whittenburg, 704-Z*
Daniel Malizia, 704-Z *

Steve Crook, 261-4H, Rm. 10*
Cary Stevens, 724-21E, Rm. 11*
Tom Lookabill, 704-Z*
Dale Bignell, 742-A*

Design Change Form (DCF)

4. Functional Classification SC SS <input checked="" type="checkbox"/> PS GS		5. Security Classification <input checked="" type="checkbox"/> U UCNI Other	1. DCF No. C-DCF-Z-00040	2. Page 1 of 5
6. Area Z AREA		7. Project No. and Name U-PMT-Z-00098, Z AREA SALTSTONE VAULT #4 CELL A ROOF CRACK (U)		
8. Originator DAVID J. HUIZENGA		Date 3/18/98	9. Organization PE&CD SFSD	10. Address 705-K
11. Phone 7-3085		12. WA Concurrence Yes <input checked="" type="checkbox"/> No		
13. Documents (No.) Requiring Change C-CC-Z-0014		Rev 2	14. Reference Documents (No.) C-CC-Z-0012	
15. Reason for Change DESIGN MODIFICATION TO Z AREA SALTSTONE VAULT No 4, CELL A, NORTH WALL FOR 98-NCR-26-0005 AND U-PMT-Z-00098.				
16. Description of Change SEE PAGES 2 THRU 5 OF THIS DOCUMENT FOR CHANGES. DATRR/USG SCREENS (3 PAGES) ATTACHED				
17. Location Z AREA VAULT #4				
18. Approval (Originator's Manager) (Print/Signature) N/A				
19. Issue Date 3/18/98		20. Physical Work Required? <input checked="" type="checkbox"/> Yes No		
21. Design Input and Other Documents Impacted?		25. Verifier/Checker (Print/Signature) G. VANDRA		27. Technical Justification/Disapproval Reason THE DESIGN MODIFICATION FILLS THE VOID BETWEEN THE Z AREA SALTSTONE VAULT WALL AND THE CLEAN GROUT MONOLITH AND PROVIDES A FLASHING COVER FOR THE LENGTH OF THE CRACK IN ORDER TO MINIMIZE WATER INTRUSION INTO THE Z AREA SALTSTONE VAULT. THE DESIGN MODIFICATION IS ADEQUATE FOR THE REQUIRED FUNCTION.
22. BCP Required? Yes <input checked="" type="checkbox"/> No		26. Reviews and Approvals		28. USG C-DCF-Z-00040
23. Design Reviews		29. Reviewing Official D. J. Huizenga		30. Date 3/19/98
24. Responsible Engineer (Print/Signature) DAVID J HUIZENGA		31. Date 3/19/98		32. Signature D. J. Huizenga

ENGINEERING DOC. CONTROL - SRS



00362825

Design Change Form Continuation Sheet

DCF No.
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THE FLASHING SHALL WRAP OVER THE EDGE OF THE WEST WALL SIMILAR TO THE ATTACHED DETAIL AND BE SEALED WITH SILICONE BUILDING SEALANT (DOW CORNING 790 OR EQUAL) TO PREVENT WATER INTRUSION. THE FLASHING LOCATED 2'-0" PAST THE ROOF PEAK SHALL TERMINATE AND BE SEALED WITH WITH SILICONE BUILDING SEALANT (DOW CORNING 790 OR EQUAL) TO PREVENT WATER INTRUSION. ADDITIONAL FASTENERS SHALL BE USED AT THE FLASHING TERMINATION LOCATION. THE ADDITIONAL FASTENERS SHALL BE 6" MAXIMUM CENTER-TO-CENTER AND 2" FROM THE EDGE OF THE FLASHING PLACED INTO THE CONCRETE ROOF AND THE NORTH WALL AND WEST WALL OF THE VAULT. FLASHING SEAMS SHALL OVERLAP 2" MINIMUM AND BE SEALED WITH SILICONE BUILDING SEALANT (DOW CORNING 790 OR EQUAL) TO PREVENT WATER INTRUSION.

THE FLASHING LINE IS DEFINED AS A LINE PERPENDICULAR TO THE WEST WALL OF THE VAULT LOCATED 1'-0" FROM THE SOUTHERN MOST CRACK LOCATION OR CRACK LINE. THE FLASHING LINE IS FROM THE WEST WALL OF THE VAULT TO A LOCATION 2'-0" PAST THE ROOF PEAK OF THE VAULT.

THE CRACK LINE AND THE MINIMUM CRACK LINE ARE DEFINED AS THE TWO (2) EDGES OF THE CRACK ALONG THE NORTH WALL OF THE VAULT. THE CRACK LOCATION AND WIDTH ALONG THE NORTH WALL OF THE VAULT VARIES. THE CRACK LINE IS THE SOUTHERN MOST EDGE OF THE CRACK ALONG THE NORTH WALL OF THE VAULT.

7. THE HANDRAIL SHALL BE RE-INSTALLED AFTER INSTALLATION OF THE FLASHING. EACH BASEPLATE OF THE HANDRAIL SHALL BE SEALED WITH SILICONE BUILDING SEALANT (DOW CORNING 790 OR EQUAL). THE SLOTTED HOLES IN THE FLASHING BELOW THE HANDRAIL BASEPLATES SHALL BE SEALED WITH SILICONE BUILDING SEALANT (DOW CORNING 790 OR EQUAL). HANDRAIL ANCHOR BOLTS SHALL BE RE-TORQUED TO THE MANUFACTURER'S REQUIREMENTS.

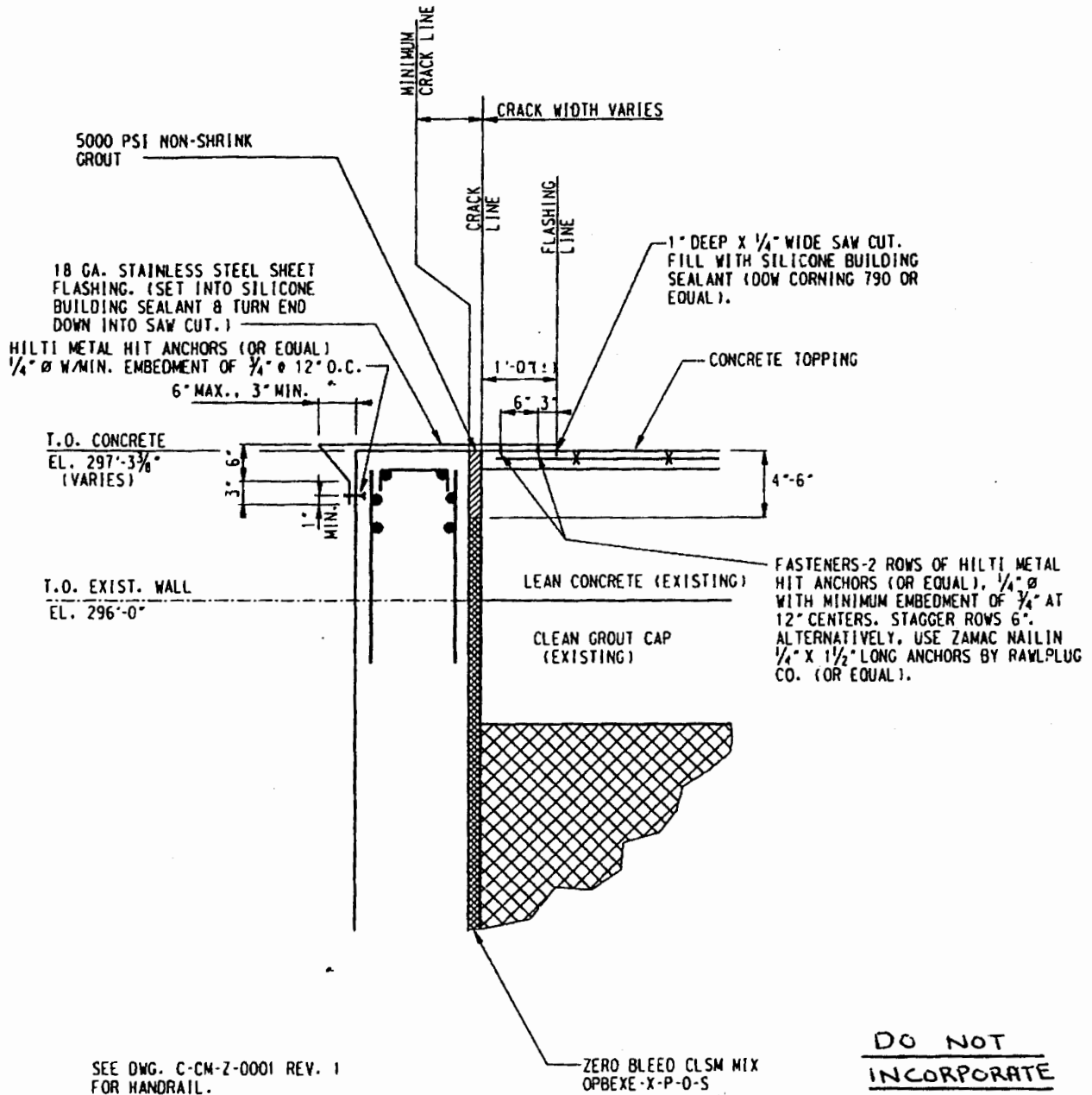
INSTALLATION REQUIREMENTS

1. FASTENERS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
2. SILICONE BUILDING SEALANT SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
3. WELDING OF HANDRAIL SHALL BE PER SRS DOCUMENTS Y-12 AND Y-16 AS APPLICABLE.
4. 5,000 PSI NON-SHRINK GROUT SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
5. ZERO-BLEED CLSM MIX OPBEXE-X-P-0-S SHALL BE INSTALLED PER THE FOLLOWING REQUIREMENTS.
 - A. THE MIXED TEMPERATURE SHALL BE BETWEEN 45 DEGREES FARENHEIT AND 70 DEGREES FARENHEIT.

Design Change Form Continuation Sheet

DCF No. C-DCF-Z-00040

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Design Authority Technical Review Report

Section 1.0 — Scope of Review					
Design Authority Technical Review Report No. C-DCF-Z-00040			Functional Classification (Check only one—leave others blank) <input type="checkbox"/> SC <input type="checkbox"/> SS <input checked="" type="checkbox"/> PS <input type="checkbox"/> GS		
Temporary Modification <input type="checkbox"/>	Temporary Modification No.		Temporary Modification Title		
Plant Modification <input checked="" type="checkbox"/>	Plant Modification No. C-DCF-Z-00040		Plant Modification Title U-PMT-Z-00098, Z Area Saltstone Vault #4 Cell A Roof Crack		
Other <input type="checkbox"/>	Other (list) _____ _____				
Brief Description of the Modification Activity Being Reviewed Repair of crack in roof and prevention of recurrence.					
Listing of Documents Reviewed WSRC-RP-92-444 R.2 (Justification for Continued Operation), SWE-SSE-980006 "Saltstone Vault #4 Cell A Remediation Plan (U)" dated 3/17/98.					
Classification Unclassified					
Section 2.0 — Review Categories					
Section 2.1—Operations		(Adverse Impact)		(Adverse Impact)	
		Yes	No	N/A	Yes No N/A
Operator Logs		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Operator Rounds		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Section 2.2 — Training and Procedures		(Adverse Impact)		(Adverse Impact)	
		Yes	No	N/A	Yes No N/A
Administrative Procedures		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Operating Procedures		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Maintenance Procedures		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Test Procedures		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Section 2.3 — Miscellaneous		(Adverse Impact)		(Adverse Impact)	
		Yes	No	N/A	Yes No N/A
Security Plan		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Emergency Plan		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Permitted Outfall		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Federal Facilities Agreement		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Turnback Documents		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Section 2.4 — Additional Reviews Required		Yes		No	
An Unreviewed Safety Question Screening (11Q, Procedure 1.05) Normally Yes for Proposed Activity in a Nuclear Facility		<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Environmental Evaluation Checklist (3Q, ECM 5.1)		<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Process Hazards Screening Report		<input type="checkbox"/>		<input checked="" type="checkbox"/>	

UNREVIEWED SAFETY QUESTION PROCESS
USQ SCREENING - PART A

USQ # C-DCF-Z-00040

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Title: U-PMT-Z-00098, Z Area Saltstone Vault #4 Call A Roof Crack (I)

Description of Proposed Activity (or Discovery)*
Repair and prevention of future recurrence.

*Include intermediate configurations which might result from the proposed activity.

1

Does the Proposed Activity involve a change to TSRs/OSRs?

YES

NO

Justification and References

In the current Authorization Basis, Z-Area has no OSR's/TSR's.

If YES prior DOE approval through the TSR/OSR change process is required, no further screening or evaluation is required, GO TO Block 3 and 4 and complete. If NO, continue with screening.

2

Does the Proposed Activity involve:

a. Change to the facility as described in the Authorization Basis?

YES

NO

b. Change to procedures as described in the Authorization Basis?

YES

NO

c. Test or experiment not described in the Authorization Basis?

YES

NO

d. Analytical errors, omissions, or deficiencies in the Authorization Basis?

YES

NO

If question a, b, c, or d is answered YES, justification below is not required, complete blocks 3 and 4 and complete a USQ Safety Evaluation (block 5). If all answers are NO, complete justification below.

Supporting Information:

References (AB documents considered):

Justification for Continued Operation (WSRC-RP-92-444) Rev. 2

Justification (required if the response to ALL questions above is NO):

The proposed activity conforms with the Authorization Basis. No physical changes are made to the facility, therefore no test or experiment is performed. No errors or omissions found in the A.B. as a result of this review.

was prescribed 3/24/98

3

SAFETY EVALUATION ORIGINATOR

Is a USQ Safety Evaluation Required? (If YES, complete a USQ Safety Evaluation)

YES

NO

Comments: No Authorization Basis changes are required as a result of the proposed activity.

T.D. Lookabill

T. Lookabill

704-Z

3/27/98

Print Name

Signature

Location

Date

4

QUALIFIED REVIEWER

Is a USQ Safety Evaluation Required? (If YES, and a USQ Safety Evaluation has not been completed, return to the SEO)

YES

NO

Comments:

Returned to SEO for:

USQ Safety Evaluation

Implementation of PA

Preparation of TSR/OSR

H. J. Kinzie

H. J. Kinzie

704-Z

3/24/98

Print Name

Signature

Location

Date