

\*\*\* ACTION REQUEST \*\*\*

PAGE: 04

A/R TYPE : CM ECR  
 REQUEST ORG : OED  
 REQUEST DATE: 21OCT06  
 REQUESTED BY: TAMBURRO

A/R NUMBER : A2152754  
 A/R STATUS : ASIGND  
 STATUS DATE: 23OCT06  
 LAST UPDATE: 25OCT06  
 PRINT DATE : 25OCT06

EVALUATION NBR: 01 ORIG DATE ASSIGNED: \_\_\_\_\_  
 EVALUATING ORG: OEDM EVAL DUE DATE: 23OCT06  
 EVAL ASIGND TO: TAMBURRO, PETE. DATE ASSIGNED: 22OCT06  
 EVAL REQUEST ORG: OEDM  
 EVAL REQUESTOR: RAY, H EVAL STATUS : RETURN  
 EVAL RETURNED BY: HUTCHINS, SP

IMPORTANCE CODE: \_\_\_\_\_ OEAP: \_\_\_\_\_ SCHEDULE CODE: \_\_\_\_\_ DATE FIXED: \_\_\_\_\_

EVAL DESC: DETERMINE PROPER SEALANT FOR DW SANDBED FLOOR VOIDS  
 \*\*\*\*\* TANO 23OCT06  
DETERMINE/EVALUATE THE PROPER FILLER (SEALER, CAULK, ETC) MATERIAL TO USE ON THE VOIDS/SEAMS IN THE DW SANDBED BAYS AS DESCRIBED IN IR/AR # 00546932. TANO 23OCT06  
 \*\*\*\*\* TANO 23OCT06  
THE SUBJECT EVALUATION (QUESTION) REQUIRES TECHNICAL (DIRECTION, GUIDANCE, INTERPRETATION, EVALUATION) TO BE GIVEN TO THE REQUESTOR (MAINTENANCE). AS SUCH, THE RESPONSE WILL BE TREATED AS A TECHNICAL EVALUATION IAW PROCEDURE CC-AA-309-101. PXT0 23OCT06  
THE RESOLUTION OF THIS TECH EVAL WAS REVIEWED IN ACCORDANCE WITH HU-AA-1212 AND FOUND TO HAVE A RISK RANK OF 3. THEREFORE A THIRD PARTY REVIEW BY AN INDUSTRY COATING EXPERT IS RECOMMENDED. PXT0 23OCT06  
A. REASON FOR EVALUATION / SCOPE: PXT0 23OCT06  
DURING VISUAL INSPECTIONS OF THE DRYWELL VESSEL EXTERIOR COATING IN THE SANDBED REGIONS (BAYS 1,7,9 &15) AREAS WERE OBSERVED TO HAVE SEAMS/VOIDS. SPECIFICALLY, THE AREAS WHERE THE EPOXY COATING REPAIRS WERE APPLIED TO THE ORIGINAL CONCRETE FLOOR OR THE SIDE OF THE BIOSHIELD HAVE SEPARATED IN SPOTS. TO PREVENT WATER FROM SEEPING UNDER THE EPOXY, AN EXPANDABLE FILLER MATERIAL IS REQUIRED FOR THE SEAMS/VOIDS. PXT0 23OCT06  
THE SCOPE OF THIS TECH EVAL IS TO PROVIDE GUIDANCE ON FILLING THE SUBJECT SEAMS/VOIDS. PXT0 23OCT06  
B. DETAILED EVALUATION: PXT0 23OCT06  
IN 1992, THE EPOXY COATING WAS APPLIED TO THE FLOOR IN AREAS WHERE IT WAS UNEVEN, SO THAT ANY WATER ENTERING THE SANDBED WOULD FLOW AWAY FROM THE VESSEL AND BE ROUTED TO THE DRAINS. SINCE 1996, INSPECTIONS HAVE FOUND INDICATIONS OF THE EPOXY SEPARATING FROM THE CONCRETE. THIS SEPARATION COULD BE CAUSED BY THE CONCRETE SWELLING (EXPANDING AND CONTRACTING) OVER TIME. PXT0 23OCT06

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THE DRYWELL IS CLASSIFIED O (SAFETY RELATED). THE	PXT0 23OCT06
CONCRETE FLOOR IN QUESTION DOES NOT HAVE A SAFETY RELATED	TANO 23OCT06
FUNCTION. THE FUNCTION OF THE FLOOR IS TO ROUTE WATER	PXT0 23OCT06
THAT MAY ENTER THE SANDBED TO THE FIVE EQUALLY SPACED	PXT0 23OCT06
DRAIN LINES AND KEEP THE WATER AWAY FROM THE DRYWELL	PXT0 23OCT06
VESSEL.	TANO 23OCT06
	PXT0 23OCT06
THE SEPARATED SEAMS COULD POTENTIALLY ALLOW SOME WATER	PXT0 23OCT06
TO GET UNDER THE EPOXY COATING REPAIR. PLEASE NOTE	PXT0 23OCT06
INSPECTION OF THESE BAYS SHOWS NO DEGRADATION DRYWELL	PXT0 23OCT06
VESSEL COATING OR THE CAULKING BETWEEN THE VESSEL	PXT0 23OCT06
COATING AND THE FLOOR. SEPARATED SEAMS ARE LOCATED	PXT0 23OCT06
AWAY FROM THE DRYWELL VESSEL AND ARE LOCATED NEAR	PXT0 23OCT06
CONCRETE BIO SHIELD.	PXT0 23OCT06
	TANO 23OCT06
THE EPOXY THAT WAS USED IN THE EARLIER REPAIR IS DEVRON	PXT0 23OCT06
184 EPOXY COATING WITH A	PXT0 23OCT06
DEVON PREPRIME 167 SEALER.	PXT0 23OCT06
	PXT0 23OCT06
BASED ON THE CONDITIONS AND MATERIALS, THE	TANO 23OCT06
RECOMMENDED FILLER SEALANT TO USE IS SIKAFLEX -	PXT0 23OCT06
TEXTURED SEALANT. THIS PRODUCT IS RECOMMENDED BY THE	PXT0 23OCT06
WILLIAM COATINGS GROUP AND IS TYPICALLY USED TO SEAL	PXT0 23OCT06
CONCRETE TO EPOXY JOINTS.	PXT0 23OCT06
	PXT0 23OCT06
THE SEALANT SHALL BE APPLIED PER THE MANUFACTURERS	PXT0 23OCT06
INSTRUCTIONS. ATTACHED IS THE TECHNICAL DATA SHEET FOR	PXT0 23OCT06
THE PRODUCT (SEE EVAL ATTACHMENT 1).	TANO 23OCT06
ALSO ATTACHMENT 2 PROVIDES THE MSDS SHEET FOR THE	PXT0 23OCT06
PRODUCT.	PXT0 23OCT06
	TANO 23OCT06
AS PER ENGINEERING STANDARD ES-027, THE ENVIRONMENTAL	PXT0 23OCT06
PARAMETERS OF THE DRYWELL (ZONE 1) ARE AS FOLLOWS:	PXT0 23OCT06
	PXT0 23OCT06
1) NORMAL PLANT OPERATING;	PXT0 23OCT06
AGING TEMP = 139 DEG F	PXT0 23OCT06
RADIATION = 20 E06 RADS	PXT0 23OCT06
HUMIDITY = 50 %	PXT0 23OCT06
PRESSURE = 16 PSIA	PXT0 23OCT06
	PXT0 23OCT06
2) DESIGN BASIS ACCIDENT;	PXT0 23OCT06
AGING TEMP = 317 DEG F	PXT0 23OCT06
RADIATION = 32 E06 RADS	PXT0 23OCT06
HUMIDITY = SUBMERGENCE	PXT0 23OCT06
PRESSURE = 53.1 PSIA	PXT0 23OCT06
	PXT0 23OCT06
THE TECHNICAL DATA SHEET (ATTACHMENT 1) INDICATES THAT	PXT0 23OCT06
SEALANT IS ACCEPTABLE FOR A SERVICE RANGE OF -40F TO	PXT0 23OCT06
170F AND IS WHETHER RESISTANT. THEREFORE THE SEALANT	PXT0 23OCT06
WILL NOT DEGRADE OVER TIME DUE TO TEMPERATURE AND	TANO 23OCT06
HUMIDITY. THE SEALANT IS NOT REQUIRED TO PERFORM ITS	PXT0 23OCT06
FUNCTION DURING THE DESIGN BASIS ACCIDENT. THEREFORE	PXT0 23OCT06

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THE DESIGN BASIS ACCIDENT PARAMETERS IN ES-027 ARE NOT APPLICABLE.	PXT0 23OCT06
THE MATERIAL IS A POLYURETHANE BASED PRODUCT MATERIAL AND IS EXPECTED TO HOLD UP WELL UNDER ABOVE NORMAL OPERATING RADIATION EXPOSURE.	PXT0 23OCT06
C. CONCLUSION / FINDINGS:	PXT0 23OCT06
BASED ON THE ABOVE EVALUATION, SIKAFLEX - TEXTURED SEALANT IS AN ACCEPTABLE FILLER MATERIAL FOR THE SEPARATIONS/VOIDS IN THE BAYS.	PXT0 23OCT06
IT IS NOTED THAT THE SIKAFLEX TEXTURED SEALANT IS DESIGNED FOR ALL TYPES OF JOINTS, WHERE THE MAX AND MIN DEPTHS DO NOT EXCEED 1/2" OR 1/4" RESPECTIVELY. ANYTHING BEYOND THESE VALUES HAS THE POTENTIAL OF DEGRADING.	TANO 23OCT06
LIMITATIONS ARE AS FOLLOWS:	PXT0 23OCT06
1) AFFECTED AREAS ARE PROPERLY PREPPED AS STATED ABOVE.	PXT0 23OCT06
2) APPROPRIATE CURE TIMES ARE ADHERED TO.	PXT0 23OCT06
3) THE SEALANT IS APPLIED PER THE MANUFACTURERS INSTRUCTIONS.	TANO 23OCT06
NOTE: A REVIEW OF CC-AA-102 DETERMINED THAT THE ACTIVITY DOES NOT IMPACT THE CONFIGURATION OF THE SANDBED. THE APPLICATION OF THE SEALANT IS A PREVENTIVE MAINTENANCE MEASURE TO ENSURE THE EPOXY GROUT WILL NOT DEGRADE OVER TIME.	PXT0 23OCT06
D. REFERENCES:	PXT0 23OCT06
1) IR/CR # 00546932	PXT0 23OCT06
2) ENG STD ES-027 REV.4	PXT0 23OCT06
3) SPECIFICATION # SP-1302-32-035 REV. 0	PXT0 23OCT06
E. LIST OF ATTACHMENTS (TO BE CMT'D WITH EVAL TO RM):	TANO 23OCT06
1) SIKAFLEX PRODUCT DATA SHEET (2 PAGES)	PXT0 23OCT06
2) SIKAFLEX MSDS SHEET (5 PAGES)	PXT0 23OCT06
RESPONSE PREPARED BY: PETE TAMBURRO	PXT0 23OCT06
CO-PREPARED BY: TEDD NICKERSON 10/23/06	TANO 23OCT06
*****	TANO 23OCT06
INDEPENDENT REVIEWER BY : HOAT HO (TMI) 10/23/06	HDH0 24OCT06
THE TECH. EVAL WAS REVIEWED TO DETERMINE WAS CORRECT INPUT USED. THE RESULTS ARE REASONABLE.	HDH0 24OCT06
ANY CONCERNS WERE DISCUSSED WITH CO-ORIGINATOR OF THIS TECH. EVAL AND RESOLUTIONS HAVE BEEN INCORPORATED.	HDH0 24OCT06

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VERIFIER CONCURS WITH ORIGINATOR.	HDH0 24OCT06
BASED ON THIS EVALUATION, THE TECH.EVAL. IS VERIFIED TO	HDH0 24OCT06
BE ACCEPTABLE.	HDH0 24OCT06
*****	HDH0 24OCT06
THIS TECH EVAL WAS REVIEWED BY JON CAVALLO (THIRD	PXT0 24OCT06
PARTY REVIEW) AND FOUND TO BE ACCEPTABLE. ATTACHMENT	PXT0 24OCT06
3 PROVIDES AN EMAIL DOCUMENTING HIS REVIEW.	PXT0 24OCT06
	SPH1 25OCT06
THIS TECHNICAL EVALUATION HAS BEEN REVIEWED AND APPROVED	SPH1 25OCT06
BY ENGINEERING MANAGEMENT. IT MEETS THE REQUIREMENTS OF	SPH1 25OCT06
CC-AA-309-101 AND HU-AA-1212. S. HUTCHINS (10/25/06)	SPH1 25OCT06

**Exhibit**

**ANC 6**