

Virginia Electric and Power Company
North Anna Power Station
P. O. Box 402
Mineral, Virginia 23117

October 24, 1996

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

NAPS: GSS
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

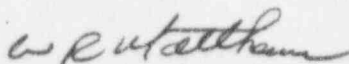
Dear Sirs:

Pursuant to North Anna Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 and 2.

Report No. 50-338/96-008-00

This Report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to the Management Safety Review Committee for its review.

Very truly yours,



W. R. Matthews
Station Manager

Enclosure:

cc: U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

R. D. McWhorter
NRC Senior Resident Inspector
North Anna Power Station

IE22/1

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HOURS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, DC 20503.

FACILITY NAME (1)

North Anna Power Station Units 1 and 2

DOCKET NUMBER (2)

05000338

PAGE (3)

1 OF 3

TITLE (4)

COMPONENT COOLING WATER SURGE TANK NOT SEISMICALLY QUALIFIED WHEN TANK LEVEL IS FULL

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	26	96	96	008	00	10	24	96	North Anna Unit 2	05000339
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	100	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(B)	
		20.405(a)(1)(i)		50.36(c)(1)	x	50.73(a)(2)(v)		73.71(C)	
		20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER	
		20.405(a)(1)(iii)		50.73(a)(2)(i) (B)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)	
		20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)			
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME

Mr. W. R. Matthews

TELEPHONE NUMBER (Include Area Code)

(540) 894-2101

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
(If yes, completed EXPECTED SUBMISSION DATE)	X				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On September 26, 1996, with Unit 1 at 100 percent power and Unit 2 shutdown for refueling, it was identified that the allowable stress values for the Component Cooling Surge Tank supporting legs and anchor bolts would be exceeded during a Design Basis Earthquake (DBE) if the tank was completely filled with water.

A four hour report was made to the NRC Operations Center at 1956 hours on September 26, 1996, in accordance with 10 CFR 50.72 (b) (2) (iii) (A) and 10 CFR 50.72 (b) (2) (iii) (B). This event is reportable pursuant to 10 CFR 50.73 (a) (2) (v) (A) and 10 CFR 50.73 (a) (2) (v) (B) for conditions that alone could have prevented the fulfillment of the safety function of structures or systems to shut down the reactor and maintain it in a safe shutdown condition and to remove residual heat.

The cause of the event was determined to be personnel error during the original design. The design failed to ensure that the assumptions made would meet the seismic requirements.

In the event of a DBE, the possibility could exist for the loss of the Component Cooling System. Procedures are in place to provide the necessary actions to take in the event of a loss of the system. Additionally, the system is not required to mitigate the consequences of a Design Basis Accident. Therefore, the health and safety of the public were not affected.

LICENSEE EVENT REPORT (LER)

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FACILITY NAME (1)		DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
North Anna Power Station Units 1 & 2		05000338	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
			96	008	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

1.0 Description of the Event

As part of the Unresolved Safety Issue (USI) A-46 and IPEEE (Seismic) Program, seismic verifications of mechanical and electrical equipment required for safe shutdown are currently being performed. As part of this program, tanks supported by legs are considered outliers and require a seismic structural evaluation. Therefore, a seismic structural evaluation of the Component Cooling Surge Tank (1-CC-TK-1) was conducted.

The Component Cooling System is a closed cycle system which operates continuously to remove heat from the various plant components. In Modes 5 and 6, Component Cooling provides an adequate heat sink for the Residual Heat Removal System to remove decay heat from the reactor core.

On September 26, 1996, with Unit 1 at 100 percent power and Unit 2 shutdown for refueling, it was identified that the allowable stress values for the Component Cooling Surge Tank (EIS System CC) (Component TK) supporting legs (Component SPT) and anchor bolts would be exceeded during a Design Basis Earthquake (DBE) if the tank was completely filled with water.

2.0 Significant Safety Consequences and Implications

In the event of a DBE, the possibility could exist for the loss of the Component Cooling System. Abnormal procedures are in place to provide the necessary actions to take in the event of a loss of the Component Cooling System. Additionally, the system is not required to mitigate the consequences of a Design Basis Accident. Therefore, the health and safety of the public were not affected.

A four hour report was made to the NRC Operations Center at 1956 hours on September 26, 1996, in accordance with 10 CFR 50.72 (b) (2) (iii) (A) and 10 CFR 50.72 (b) (2) (iii) (B). This event is reportable pursuant to 10 CFR 50.73 (a) (2) (v) (A) and 10 CFR 50.73 (a) (2) (v) (B) for conditions that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to shut down the reactor and maintain it in a safe shutdown condition and to remove residual heat.

3.0 Cause of the Event

The cause of the event was determined to be personnel error during the original design. The original design failed to ensure that the assumptions made would meet the seismic requirements.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
North Anna Power Station Units 1 & 2	05000338	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		96	008	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

4.0 Immediate Corrective Actions

A Justification for Continued Operation (JCO) C-96-02, "Component Cooling Surge Tank Seismic Evaluation" was issued to allow the component cooling surge tank to remain in service provided that the surge tank water level was maintained at or below the level determined by the engineering analysis. Additionally, Operations Standing Order No. 216 "Component Cooling Surge Tank Seismic Evaluation" was issued to place administrative controls to maintain this level as indicated by the level transmitter 1-CC-LT-101. If the level was exceeded, both units were to initiate a plant shutdown per Technical Specification Action 3.0.3. The final results of the engineering analysis determined that a tank level at or below 50 percent was capable of performing its design basis functions related to seismic concerns during DBE conditions until the design changes were completed.

Design changes were initiated to modify the Component Cooling Surge Tank support legs to ensure that the allowable stress values for the support legs and anchor bolts would not be exceeded during a DBE with the tank filled to the design water level.

5.0 Additional Corrective Actions

Design modifications were completed to the Component Cooling Surge Tank support legs to allow the surge tank to be capable of fulfilling its design basis requirements when completely filled. The temporary limits on the surge tank level are no longer required.

The Seismic Reverification Program will continue to perform seismic verifications of the mechanical and electrical equipment required for safe shutdown as part of the USI A-46 and IPEEE (Seismic) project.

6.0 Actions to Prevent Recurrence

None

7.0 Similar Events

LER N1-96-004-00 identified seismic concerns with the operation of the containment gaseous and particulate radiation monitors following a Safe Shutdown Earthquake.

8.0 Additional Information

None