10 CFR 50.73

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
MINERAL, VIRGINIA 23117

November 22, 1989

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

Serial No. N-85-003C
NO/DEQ: nih
Docket No. 50-338
50-339

License No. NPF-4
NPF-7

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following updated Licensee Event Report applicable to North Anna Units 1 and 2. This Licensee Event Report has been updated to include an additional situation that could arise under extreme rainfall conditions and to update the permanent corrective actions being taken.

Report No. LER 85-003-03

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to Safety Evaluation and Control for their review.

Very Truly Yours,

G. E. Kane
Station Manager

Enclosures

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

Mr. J. L. Caldwell
NRC Senior Resident Inspector
North Anna Power Station

IE 22
1/1

NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
NORTH ANNA POWER STATION, UNITS 1 AND 2	0 5 0 0 0 3 3 8	1 OF 0 2

TITLE (4)

FLOODING POTENTIAL NOT PREVIOUSLY EVALUATED-UPDATED TO REVISE CORRECTIVE ACTION

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 NAMES	DOCKET NUMBER(S)
									NORTH ANNA, UNIT 2	0 5 0 0 0 3 3 9
0 3	1 9	8 5	8 5	0 0 3	0 3	1 1	2 2	8 9		0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

	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 (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		
	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	TELEPHONE NUMBER
	AREA CODE
G. E. Kane, Station Manager	7 0 3 8 9 4 - 5 1 5 1

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)

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

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

A recent review of the North Anna Main Dam and other hydro structures revealed that previous studies had failed to identify the Unit 3 & 4 construction area as a potential flood path to the Unit 1 & 2 Turbine Building. Partial flooding of the Turbine Building is addressed by the UFSAR. Current procedures provide guidance for action to be taken in response to rising lake level.

However, on September 7, 1989, it was determined that due to the current surveillance interval required by Technical Specification 3/4.7.6, a situation could arise, under Design Basis rainfall conditions, where the water level is measured below 255 feet and would rise to 264 feet prior to the next required surveillance interval.

As a corrective action, a Justification for Continued Operation was written and administrative controls were implemented to require surveillance of the water level at an increased frequency. As a permanent corrective action a flood control dike will be constructed to protect safety related electrical equipment from flood damage.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
NORTH ANNA POWER STATION, UNITS 1 & 2	0 5 0 0 0 3 3 8	8 5	— 0 0 3	— 0 3	0 2 OF 0 2

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

A recent review of the North Anna Main Dam and other hydro structures revealed that previous studies had failed to identify the Unit 3 & 4 construction area as a potential flood path to the Unit 1 & 2 Turbine building. Partial flooding of the Turbine building is addressed by the UFSAR. The normal Lake Anna water level is 250 feet above mean sea level (msl). Finished ground grade elevation for the station is 271 feet. The Turbine Building basement elevation is 254 feet. The Unit 2 end of the Turbine building faces the Unit 3 & 4 restored construction site area which has a nominal elevation of 250 feet. Dike VI protects the Unit 3 & 4 construction area from Lake Anna flooding up to 255 feet. The original FSAR estimated lake flood level was 254.5 feet. In June 1976 a revised analysis indicated a still-water probable maximum flood level of 264.2 feet could exist at the station site. The height of Dike VI had not been identified as insufficient until a recent study.

During a probable maximum flood, Dike VI would not protect the Unit 3 & 4 restored contruction site from flooding. Further, Unit 2 Turbine Building does not have a water tight wall (cinder block with doors sealed by steel plating) on the westside facing the restored area. The UFSAR evaluation addresses flooding the Turbine Building to 255' 11" during a maximum flood event, without safety related equipment damage. If no additional action is taken to pump the Turbine Building the possibility exists that the water level in the Turbine Building could exceed the height of the water tight walls which are designed to protect the Service and Auxiliary Buildings to the 257 foot level.

A significant length of time will exist between the first indication of rising lake level and possible Service Building flooding and will allow adequate corrective measures to be implemented. Existing procedures provide guidance on lake level control with the operation of dam gates, shutdown of both units during unusually high lake level, minimizing Turbine Building flooding and implementing the Emergency Plan if safety related equipment could be affected by flooding.

However, on September 7, 1989, it was determined that due to the current surveillance interval required by Technical Specification 3/4.7.6, a situation could arise, under Design Basis rainfall conditions, where the water level is measured below 255 feet and would rise to 264 feet prior to the next required surveillance interval.

As a corrective action, a Justification for Continued Operation was written and administrative controls were implemented to require surveillance of the water level at an increased frequency. As a permanent corrective action a flood control dike will be constructed around the end of the Unit 2 Turbine and Service Buildings. The construction of the flood dike will be completed in 1989. In the interim, the already implemented compensatory measures (see above paragraph) will be continued.