

1.2.4

VIRGINIA ELECTRIC AND POWER COMPANY NORTH ANNA POWER 57* TION P. O. BOX 402 MINERAL, VIRGINIA 23117

10 CFR 50.7.2

April 2, 1992

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555 Serial No. N-92-10 NAPS:WCH Docket Nos. 50-338 50-339 License Nos. NPF-4 NPF-7

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 and 2.

Report No. 50-338,339/92-007-00

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

Very Truly Yours,

Kane

Station Manager

Enclosure:

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

> Mr. M. S. Lesser NRC Senior Resident Inspector North Anna Power Station

9204070310 920402 PDR ADDCK 05000338 S PDR

TE22.

FOHM BOR	USENSEE EVENT REPORT (I	S. NUCLEAR REGULATORY COMMISSION	APPROVED DME NO. 3150-0104 EXPIRES - 430/92 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 65.0 HIR. FORWARD LOMMENTS RECARDING DURDEN ESTIMATE TO THE REOORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE REOORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE REOORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE REOORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. PAPER WORK RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S.							
20. Sec. 199			1	and the second	DOCKET NUMBER (2)					
CETTY NAME (1)	and their S and S				015101010131318 11					
North Anna Power St	ation Units 1 and a		A MICE PI	NUMBER TO RE.	ACTOR TRIP	50				
MISSED SUI	VEILLANCES ON RC	P BUS UV/UF TESTING	u AND SI	INFOT TO ISIA		A ALLEY MED (B)				
EVENT DATE (S)	LER NUMBER (6)	REPORT	DATE (7)	CARLEN IN	OTHER FACE ITTE	Theorem Holder Rids				
EAGUAL DATE IN	SEQUENTIAL SEQUENTIAL	REVISION MONTH	DAY YEAR	North Anna U	nit 2	aletatolo 1313				
REAL DAY ARAM	YEAR NUMBER	NUMBER		and another statements	and the second second second second	DECKET NUMBERION				
		0 0 0 0	0/2/0/2							
0 3 0 6 9 2	92007	0 0 0 0 4	OF 15 CFR 6 1	Check prie or triste of the	e toikowing) (11)	TATA Providence of the				
OPERATING 1	THIS REPORT IS BURNITTED PUT	20.405(c)	T	60.73(a(2)(iv)		73.71(0)				
MODE (9)	20.405(8)(1)/0	50.90(6)(1)		50.73(4)02(V)		CTHER INVESTIGATION				
LEVIS	20.405(8)(1)(0)	50.190(c) (2)		60,73(4)(2)(V0)		Tables and in Table fails (1995)				
(10) 0 9 5	20.406(83(13(8)	50.73(a)(2)(0	-	50 70(4)(2)(94)(9)						
	20.405(a)(1);-4)	50.79(a)(2)(0)	1.1.1							
	20.405(a)(1)(V)	LICENSEE CONTACT	FOR THIS LER	(18)		and an and a second				
and the second sec						TELEPHONE NEW AN				
G.E. Kane, Station	Manager				AREA COD					
CARL AND ANALYSIS IN CONTRACTOR					7 0	3 8 9 7 - 2 1 0				
		ONT THE LOD EACH DOMPONEN	T FAILURE DES	CAULED IN THIS REPO	1. d. d.	T susperior to the second				
	COMPLETE MANUFACI RU	ORTABLE	CAUSE SYSTE	M COMPONENT	TURER	TO NPRDS				
CAUSE EVETEM CONTY	ONENT TURER T	D MPFADS			1 1 1					
		Server and the server of the server of the	1	111	111					
		Conception of the second second	I	- I - I - I - I - I - I - I - I - I - I	in the second	ne der er er en				
and the second s	BUIMPLEMENTAL	REPORTEXPECTED (14)	A CONTRACTOR OF A CONTRACTOR		EXPECTED	MONTH DAY				
		NOTINO.			DATE (10					
VEB (It yes, complete EXPL	OTED SUBMISSION DATE	(10)		a 1 and D	nit 2 in	Mode 6, an				
evalua Coolar channe Specif docum Servit testin were input These devel	tion of surveill of Pump (RCP) b if functional te ication (TS) Tal antation could r te bus U st circuit ag (Item 16). A performed, and is to Reactor Trip events are repor The cause of th op appropriate pu These events	ance requirement us monthly under standard were not per- topole 4.3-1, Items to be located to was fully test a corrective a it was found the for both units table pursuant t ese events was p cocedures to satistic posed no sign if the Unit 1 U	ts dete ervolta arformed which e ed duri action, at test were n o lOCFR ersonne afy TS ificant rv/UF o	re and un d in accor i 17. Upo insured the ng 18 mont further TS s of the iot perform 50.73 (a)(2 l errors re surveilland safety hannels an	derfreque dance wit n further a Unit 1 h channel i surveill Safety In ed monthl (i) (B). esulting ce require implicat d previou	incy (UV/UF) th Technical evaluation, "A" Station calibration lance reviews (jection (SI) y (Item 19). in failure to ements. ious because us bi-monthly				

a

0. 10

NRC FORM BREA (8-89)	U.S. NUCLEAR RECULATORY COMMELSION	NUM APPINENCED DME NO. 3150-0104 EXPINES: 4/30/92							
LICENSEE EVEN	IT REPORT (LER)	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATE COLLECTION REGUEST: SO.0 HRS FORWARD COMMENTS REGARDING BURD ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BREAKCH (P-880), U NUCLEAR REGULATORY COMMESSION, WASHINGTON, DC 20555, AND TO T PAPERWORK REDUCTION PROJECT (2150-0104), OFFICE OF MANAZEMENT 5, RUDGET, WASHINGTON, DC 20503							
FAGL (TY NAME (1)	EXXXXET NUMBER (2)	LER NUMMER (6) PAGE (7							
North Anna Power Station Unit 1 and 2	ind 2	YEAR SECUENTIAL REPORT							
	012101010131318	18 9 2 - 0 1 0 1 7 - 0 1 0 0 2 5 1	014						

1.0 Description of the Event

On March 6, 1992, during a Unit 2 refueling outage with Unit 1 operating at 95% power, an evaluation of station service bus purveillance requirements determined that the Unit 2 Reactor Coolant Pump (RCP)(EIIS AB-P) power supply bus monthly undervoltage and underfrequency (UV/UF) protection channel (EIIS JC-CHA) functional tests were not being performed in accordance with Tochnical Specification (TS) 4.3.1.1.1 Table 4.3-1 Items 16 and 17. Upon further evaluation, documentation could not be located which ensured the Unit 1 "A" Station Service bus UV reactor trip circuit was fully tested during 18 month frequency channel calibration testing as required by Item 16. As a corrective action, further TS surveillance reviews were performed, and it was found that channel functional tests of the Safety Injection input to Reactor Trip for both units was not being performed monthly in accordance with Item 19. These events are reportable pursuant to 10CFR50.73 (a) (2) (i) (B).

The North Anna Units 1 and 2 TS Surveillance 4.3.1.1.1 requires that each reactor trip system instrumentation channel be demonstrated operable by the performance of periodic tests at frequencies shown in Table 4.3-1. The Unit 2 Table 4.3-1 requires that RCF bus UV/UF protection channel functional tests be performed on a monthly frequency while in Mode 1. Unit 1 does not have a monthly UV/UF functional test TS requirement. The Surveillance Test/Technical Specification Cross-Reference Document currently states that the Unit 2 monthly surveillance requirements of Table 4.3-1 Items 16 and 17 are performed by PT-36.1A and PT-36.1B. These procedures actually perform an automatic trip logic test, which includes a portion of the UV/UF circuitry, on a "staggered test basis" (once every two months) to satisfy the requirements of Item 22 of Table 4.3-1. Since a monthly channel functional test has not been performed, the surveillance requirement has not been satisfied for items 16 and 17. An "information only" Action was entered on Unit 2 to ensure the testing will be completed before restart.

TS Table 4.3-1 for both units also requires RCP bus UV/UF channel calibrations during each refueling outage. The combination of "overlapping" tests which perform this surveillance were reviewed to determine if the procedures adequately provide verification of the entire circuit as required for a channel calibration. The overlapping test procedures did not require documentation that the UV alarm circuitry was operable as required by a channel calibration. Historical computer printouts from UV testing performed during the previous Unit 1 outage document that all station service bus alarm circuits functioned with the exception of the "IA" bus UV protection. Since documentation which ensures that the entire "IA" bus UV protection circuit had been tested could not be located, it was conservatively assumed that the surveillance had been missed, and TS 4.0.3 was entered.

Item 19 % TS Table 4.3-1 requires a monthly channel functional test of the Safety Injection (SI) input to Reactor Trip. This test has been incorrectly performed on a staggered test basis which tests each train every 62 days. Therefore, this surveillance has also been missed during previous

NRC FORM SIGA (6-89)	PEM SIGA U.S. NUCLEAR REQULATORY COMMERSION			APPROVED GAB NO \$150-0104 EXPIRES: 4:30:32							
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION			ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATE COLLECTION REQUEST: \$0.0 HAS FORWARD COMMENTS REGARDING BURD ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P.530), U NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO T PAPERWORK REDUCTION PROJECT (\$150,0104), OFFICE OF MANAGEMENT A BUDGET, WASHINGTON, DC 20500								
FACE ITY NAME (1)	CONTRET HUMHER (2)	LER NUMMER (6) PAGE					PAGE (3)			
		YEAR		TRECORNER NUMBER		NUMBER					
North Anto Power Station Unit 1 and 2					T						
	018101010131318	9 2		0 0 7	1000	0 1 0	0 3 3 05	014			
TE^{2} , T (if more space is identical, use antitional NFR) form (MAA a) $\left(17\right)$	Worker Jacob Larrada										

1.0 Description of the Event (continued)

operating cycles. Unit 1 did not enter TS 4.0.3 due to this event because 31 days had not elapsed since the last test. The Surveillance Test/Technical Specification Cross-Reference Document does not specify a monthly procedure for this surveillance requirement.

2.0 Significant Safety Consequences and Implications

These events posed no significant safety implications because subsequent testing of the Unit 1 UV/UF channels and previous staggered testing of the SI input to Reactor Trip circuitry demonstrated that all circuitry was capable of performing its intended function. Testing will be performed on Unit 2 prior to startup. In addition, a review of the operating history for both units revealed that the RCP bus UV/UF protection circuitry has not been challenged. Therefore, the health and safety of the general public was not affected at any time due to these events.

3.0 Cause of the Event

The cause of the events was personnel error resulting in failure to develop appropriate procedures to satisfy the surveillance requirements.

4.0 Immediate Corrective Actions

Due to the undocumented surveillance of the entire Unit 1 "A" RCP bus UV protection circuit, Unit 1 entered TS 4.0.3 which allows 24 hours for surveillance testing. A channel calibration procedure was written, and the test was completed satisfactorily within the 24 hour limit. Since Unit 2 was in a refueling outage, no immediate testing was required.

5.0 Additional Corrective Actions

Temporary changes to current channel calibration tests were developed and performed for all RCP bus UV/UF protection circuits on Unit 1 as a good practice.

An Engineer/SRO has performed an in-depth study of the North Anna TS Surveillances required by TS 3.3.1.1 and 3.3.2.1 for both units to verify that the existing procedures fully meet the requirements. Documents were reviewed to ensure continuity through entire instrumentation loops was tested as required by the appropriate surveillance requirement. The SI input to reactor trip missed surveillance was found during this review.

An additional review of other complex instrumentation/electrical surveillance requirements will be performed to verify TS surveillance requirements are fully met.

NHC FORM DENA (8-89)	U.S. NUCLEAR RECURATORY COMMODING		APPROVED CMB NO. \$155-5104 EXPIRES 14/35/92								
LICENSE& EVENT REPORT TEXT CONTINUATION	LICENSE EVENT REPORT (LER) TEXT CONTINUATION			ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATIO COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDE ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530, U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO TH PAPERWORK REDUCTION PROJECT (0150-0154), OFFICE OF MANAGEMENT AN BUCKET, WASHINGTON, DC 20503.							
FACILITY NAME (1)	LEP, NUMBER (6) PAGE (3)						0				
North Anna Power Station Unit i and 2		YEAR		NUMBER		HEVGEOK NUMBER					
	018/010/013/3/8	9 2	-	0 0 7	-	0 1 0	014	QE	014		

6.0 Actions to Prevent Recurrence

Functional test procedures for monthly RCP UV/UF protection circuitry of the Unit 2 RCP busses will be developed and performed prior to entering Mode 1 following the current refueling outage to completely satisfy the 18 month calibration requirement. An "information only" Action was entered on Unit 2 to ensure the testing will be completed before restart. These procedures will then be performed on a monthly frequency.

18 month FCP bus UV/UF protection channel calibration procedures for both units will be enhanced to permanently incorporate changes that verify the entire circuits are tested as required by a channel calibration.

The SI input to Reactor trip channel functional test procedures will be performed monthly as required by the TS.

A TS change package will be submitted to require the SI input to reactor trip surveillance on a bi-monthly frequency.

7.0 Similar Events

LER N1/2-50-009-02 described an event where full response time testing of the Scurce Range Neutron Flux Reactor Trip preamplifiers, the Power Range Neutron Detector isolation amplifiers and the Overtemperature Delta Temperature Reactor Trip lag and lead/lag cards was not performed due to incorrect TS interpretation.

LER N3-91-001-00 documents an event where a set of contacts and associated wiring on the control room bench board switch for the Train A power operated relief valve (PORV) over pressure control circuitry had not been tested as required by TS surveillance requirement 4.4.3.2.1.b. The cause of the event was the incorrect interpretation of TS 4.4.3.2.1.b. Previous interpretations aid not require testing of the contacts and associated wiring for the PORV control circuitry.

7.0 Additional Information

None.