



W. T. Cottle

Vice President
Nuclear Operations

December 18, 1990

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
RPS Actuation Due To Test
Equipment
LER 90-025
GMRC-90/00009

Attached is Licensee Event Report (LER) 90-025 which is a final report.

Yours truly,

WTC/BB:cg
Attachment

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NRC Form 386 (9-83)										U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES 8-31-86															
LICENSEE EVENT REPORT (LER)																									
FACILITY NAME (1) Grand Gulf Nuclear Station - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 4 1 6					PAGE (3) 1 OF 0 3										
TITLE (4) RPS Actuation Due To Test Equipment																									
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)													
1	1	2	2	9	0	9	0	0	2	5	0	0	1	2	1	8	9	0	0	5	0	0	0		
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)																									
OPERATING MODE (9)		20.402(b)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)		20.406(a)	
POWER LEVEL (10)		01010																							
LICENSEE CONTACT FOR THIS LER (12)																									
NAME Bruce A. Burke / Licensing Engineer										TELEPHONE NUMBER 6 0 1 4 3 7 - 6 3 3 3															
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC											
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)															
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO															
ABSTRACT (Limit to 1400 spaces. Use appropriate priority. Single space for typewritten lines) (16)																									
<p>Actuation of the Reactor Protection System (RPS) occurred during surveillance of the reactor mode switch on November 22, 1990. The plant was in cold shutdown with reactor water at 145 degrees F and atmospheric pressure at the time of the event.</p> <p>The reactor mode switch was being tested in accordance with an approved station procedure to verify RPS actuation instrumentation. A half scram signal was intentionally present on one RPS trip system when a simulated low main steam line pressure indication was received by the second RPS trip system. The RPS actuation was determined to have been caused by the diminishing power supply of the test equipment.</p> <p>This actuation of the RPS did not jeopardize plant conditions or equipment. An evaluation will be conducted to determine a more reliable test equipment or power source for existing test equipment prior to the next scheduled performance of the surveillance.</p>																									

NRC Form 300 (9-83)										U.S. NUCLEAR REGULATORY COMMISSION									
LICENSEE EVENT REPORT (LER)										APPROVED OMB NO. 3180-01M EXPIRES 8-31-86									
FACILITY NAME (1) Grand Gulf Nuclear Station - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 4 1 6 1					PAGE 3 OF 0 3				
TITLE (4) RPS Actuation Due To Test Equipment																			
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)							
1 1	2 2	9 0	9 0	0 2 5	0 0 1	2 1	8 9	0				0 5 0 0 0							
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)																	
4		20.402(b)		20.406(i)		X		80.73(a)(2)(iv)		73.71(b)									
POWER LEVEL (10)		20.406(a)(1)(iii)		80.38(a)(1)				80.73(a)(2)(iv)		73.71(c)									
0 0 0 0		20.406(a)(1)(iv)		80.38(a)(2)				80.73(a)(2)(iv)		OTHER (Specify in Abstract below and in Text, NRC Form 366)									
		20.406(a)(1)(v)		80.73(a)(2)(i)				80.73(a)(2)(viii)(A)											
		20.406(a)(1)(vi)		80.73(a)(2)(ii)				80.73(a)(2)(viii)(B)											
		20.406(a)(1)(vii)		80.73(a)(2)(iii)				80.73(a)(2)(ix)											
		20.406(a)(1)(viii)		80.73(a)(2)(iv)				80.73(a)(2)(x)											
LICENSEE CONTACT FOR THIS LER (12)										TELEPHONE NUMBER									
NAME Bruce A. Burke / Licensing Engineer										AREA CODE 6 0 1 4 3 7 - 6 3 3 3									
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																			
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS										
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)									
YES (if yes, complete EXPECTED SUBMISSION DATE)										MONTH DAY YEAR									
X NO																			
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)																			
<p>Actuation of the Reactor Protection System (RPS) occurred during surveillance of the reactor mode switch on November 22, 1990. The plant was in cold shutdown with reactor water at 145 degrees F and atmospheric pressure at the time of the event.</p> <p>The reactor mode switch was being tested in accordance with an approved station procedure to verify RPS actuation instrumentation. A half scram signal was intentionally present on one RPS trip system when a simulated low main steam line pressure indication was received by the second RPS trip system. The RPS actuation was determined to have been caused by the diminishing power supply of the test equipment.</p> <p>This actuation of the RPS did not jeopardize plant conditions or equipment. An evaluation will be conducted to determine a more reliable test equipment or power source for existing test equipment prior to the next scheduled performance of the surveillance.</p>																			

NRC Form 306A (9-83)		LICENSEE EVENT REPORT (LER) TEXT CONTINUATION			U.S. NUCLEAR REGULATORY COMMISSION		
					APPROVED ONE NO. 3180-0104 EXPIRES: 6/31/88		
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Grand Gulf Nuclear Station	0 6 0 0 0 4 1 1 6	9 0	0 2 5	0 1 0	0 3	OF	0 3
TEXT IF MORE SPACE IS REQUIRED, use additional NRC Form 306A w/ (17)							
<p>D. Apparent Cause</p> <p>The RPS actuation was determined to have been caused by the diminishing power supply of the test equipment. Eight TE units were employed to perform the surveillance. One TE unit's battery did not provide adequate power for the duration of the surveillance. The TE had been in service for approximately two hours when it provided an inadequate signal to the RPS.</p> <p>Each TE unit has a battery condition check feature as part of the unit. The battery condition was acceptable for each of the eight TE units prior to initially commencing the surveillance. Each battery had been recharged for eight hours prior to the surveillance. Three of the other seven TE units indicated marginal power reserve prior to resuming surveillance. These four TE units were replaced with TE units having an acceptable battery condition prior to resuming the surveillance.</p> <p>Surveillance of the reactor mode switch previously has not actuated the RPS due to test equipment.</p> <p>E. Supplemental Corrective Action(s)</p> <p>An evaluation will be conducted to determine a more viable power source for the TE units or alternative test equipment prior to the next scheduled performance of this surveillance. If this evaluation determines that the present test equipment is the most practical for this application, then the surveillance procedure will be revised to provide for battery checks without actuating the RPS.</p> <p>F. Safety Assessment</p> <p>The actuation of the RPS as a consequence of the subject surveillance did not jeopardize plant conditions or equipment. The reactor control rods were in the fully inserted position prior to the RPS actuation. Performance of system equipment involved was acceptable. No usage factor was incurred as a consequence of the reported occurrence. The safety of the general public was not compromised by this event.</p>							