

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Catawba Nuclear Station, Unit 1														DOCKET NUMBER (2) 0 5 0 0 0 4 1 3				PAGE (3) 1 OF 0 3	
TITLE (4) More Than One Shutdown/Control Bank Withdrawn At One Time																			
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)						
0	9	01	8	4	0	0	1	0					0 5 0 0 0						
0	9	01	8	4	0	0	1	0					0 5 0 0 0						
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																	
5		20.402(b)				20.406(e)				60.73(a)(2)(iv)				73.71(b)					
POWER LEVEL (10)		0 0 10				20.406(a)(1)(i)				60.73(a)(2)(v)				73.71(c)					
		20.406(a)(1)(ii)				60.73(a)(2)(vi)				60.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A.)					
		20.406(a)(1)(iii)				60.73(a)(2)(i)				60.73(a)(2)(viii)(A)									
		20.406(a)(1)(iv)				60.73(a)(2)(ii)				60.73(a)(2)(viii)(B)									
		20.406(a)(1)(v)				60.73(a)(2)(iii)				60.73(a)(2)(ix)									
LICENSEE CONTACT FOR THIS LER (12)																			
NAME										TELEPHONE NUMBER									
Roger W. Ouellette, Assistant Engineer-Licensing										AREA CODE		7 0 4 3 7 3 - 7 5 3 0							
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																			
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs
SUPPLEMENTAL REPORT EXPECTED (14)														EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR	
YES (If yes, complete EXPECTED SUBMISSION DATE):														NO					

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

On September 1, 1984, at 2351 hours, Reactor Control Rods from more than one Control Rod Bank were in a withdrawn position at the same time during the performance of Rod Drop Timing tests. This violates Technical Specification 3.10.5 which states that only one Shutdown or Control Bank can be withdrawn from the fully inserted position at any one time. This incident is classified as an Administrative/Procedural Deficiency. The Rod Drop Timing procedure did not take into account Tech Spec 3.10.5. This Tech Spec violation was discovered on September 2, 1984, at approximately 1030 hours. Unit 1 was in Mode 5 at the time. This incident is reportable pursuant to 10 CFR 50.73, Section (a) (2) (i).

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Catawba Nuclear Station, Unit 1	05000413	84	010	00	02	OF	03

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

Test Procedure, TP/1/B/2600/06, Rod Cluster Control Assembly Drop Time test - Phase 1, began on the morning of September 1st. At the time of the violation, Sections 12.1.6 and 12.1.7 of the procedure were being performed. These sections deal with testing the Slave Cyclor Circuits for the Power Cabinets, Section 12.1.6 tests the Slave Cyclor Circuits for Power Cabinet 1AC. RCCA H-6 was chosen to begin the Slave Cyclor timing portion for Cabinet 1AC. Power Cabinet 1AC operates 2 of the 4 assemblies in Control Bank A (RCCA H-6 and H-10). It also operates assemblies for Control Bank C and Shutdown Bank A which were disabled for this particular test. RCCA H-6 and H-10 were withdrawn 6 steps, then RCCA H-10 was disabled to prevent movement. RCCA H-6 was withdrawn further to perform the timing tests. After testing, it was inserted until it reached the six step withdrawal position.

Step 12.1.7 of the procedure states that Section 12.1.6 is to be repeated for Power Cabinet 2AC. RCCA F-6 in Control Bank C was chosen for the Slave Cyclor timing in Cabinet 2AC. Four of the assemblies in Control Bank C were withdrawn six steps. Then all of these assemblies except F-6 were disabled. RCCA F-6 was withdrawn further to perform timing tests for Cabinet 2AC. It was then inserted until it reached the six step withdrawal position. The same process was repeated for Cabinets 1BD and SCDE using assemblies in Shutdown Banks B and C. The affected rods in these two banks were G-3, C-9, J-13, N-7, E-3, C-11, L-13, and N-5.

Tech Spec 3.10.5 is a Special Test Exception and applies when performing rod drop time measurements during Modes 3, 4, and 5. It states that "only one shutdown or control bank is withdrawn from the fully inserted position at a time" when rod drop time measurements are being performed. Only one entire bank, Shutdown Bank C was withdrawn. This bank consists of four assemblies, all powered from Power Cabinet SCDE. Although no more than one full bank was withdrawn at the same time, various assemblies from different groups were withdrawn. Tech Spec 3.10.5 was interpreted as being violated if any two RCCA's from different banks are in a withdrawn position at the same time. Therefore, the violation occurred when the four Control Bank C assemblies were withdrawn, because two assemblies in Control Bank A were already withdrawn six steps from rod bottom.

The violation ended when the Main Reactor Trip Breakers were opened. This caused all RCCA's that were withdrawn to fall to the fully inserted position. The breakers were opened so that troubleshooting could be performed in Power Cabinet 2BD. At that time, it was not realized that a violation had occurred.

This incident is classified as an Administrative/Procedural Deficiency. The procedure was written to allow RCCA's from different banks to be in a withdrawn position at the same time. No radioactive material releases, radiation exposure, or personnel injuries occurred during the incident.

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TEXT (If more space is required, use additional NRC Form 386A's) (17)

CORRECTIVE ACTION

The Main Reactor Trip Breakers were opened.

A procedure change was written to TP/1/B/2600/06. This change added additional steps in the procedure to insure that all rods are at the rod bottom position after each Power Cabinet is tested. The Slave Cyclor Circuits were retested.

The immediate corrective action caused all rod assemblies to fall to the fully inserted position in the reactor core.

The procedure change eliminated the possibility of Tech Spec 3.10.5 being violated.

The planned corrective action will provide more flexibility when performing calibration and testing on the Rod Control System.

SAFETY ANALYSIS

With the affected rods at six steps from rod bottom, the affect on core reactivity was minimal. Also, the boron concentration was maintained at greater than 2100 parts per million (ppm) throughout the incident. A boron concentration of at least 2000 ppm will assure that the reactor remains subcritical if all of the rod assemblies are in the fully with-drawn position. The shutdown margin was more than adequate to maintain the reactor in a shutdown condition. Therefore, the health and the safety of the public were not affected by this incident.

DUKE POWER COMPANY

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VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

October 1, 1984

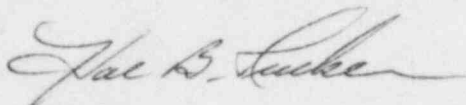
Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Catawba Nuclear Station, Unit 1
Docket No. 50-413

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached is Licensee Event Report 413/84-10 concerning more than one Shutdown/Control Bank withdrawn at one time. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,



Hal B. Tucker

RWO:slb

Attachment

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Atlanta, Georgia 30339

American Nuclear Insurers
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The Exchange, Suite 245
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Farmington, CT 06032

NRC Resident Inspector
Catawba Nuclear Station

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