

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1) McGuire Nuclear Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 7 0	PAGE (3) 1 OF 0 3
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TITLE (4)  
Reactor Trip During Test of Reactor Trip Bypass Breakers

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)
07	19	84	84	016	00	08	20	84			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)									
POWER LEVEL (10) 0 7 3	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)								

LICENSEE CONTACT FOR THIS LER (12)	
NAME Scott Gewehr - Licensing	TELEPHONE NUMBER AREA CODE: 7 0 4 3 7 3 - 7 5 8 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
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO				

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

On July 19, 1984, a reactor trip occurred on Unit 2 when, during testing, a Reactor Trip Breaker (RTB) was opened from the Control Room rather than from the breaker cabinet where the testing was taking place. The cause of the trip is attributed to a deficiency in the procedure by which the testing is performed, in that for those instances when only the bypass breakers are to be tested (as was the case in this event), several procedure steps are omitted. The steps which were omitted contained necessary clarifying information which would have prevented the error.

All Reactor Systems operated as designed, and the transient behaved as expected. No safety valves or PORVs lifted and there was no safety injection.

The RTB Test procedure will be rewritten for clarification and the appropriate personnel have reviewed the event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	OF	0   3

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

EVENT DESCRIPTION

At 1840, on July 19, 1984, a Unit 2 reactor trip occurred during testing. The test was to reverify the opening time of the reactor trip bypass breakers which had recently undergone semi-annual preventive maintenance. Two Instrument and Electrical (IAE) technicians performing the test, contacted the control operator in the Control Room. They requested that he open the Unit 2 Train A reactor trip breaker (RTA) so RTA could be removed from its compartment. The control operator opened the RTA using the control board switch which tripped the reactor. At the time of the trip, the unit was decreasing load at 4 MWe/minute preparing for a unit shutdown to repair 2BB-140A, Steam Generator 2A Blowdown [EIIS:WI] Containment Isolation Valve [EIIS:V]. The trip occurred with the unit at 73% power. This incident is considered an Administrative/Procedural Deficiency, because the procedure was unclear how and where the reactor trip breaker should be tripped.

TRANSIENT ANALYSIS

Reactivity was properly controlled by the reactor trip as the control rods [EIIS:ROD] inserted into the core. Pressurizer pressure responded properly, reaching a minimum of 2093 psig before recovering to its post-trip reference value. The pressurizer PORVs or code safety valves did not lift. Pressurizer level also responded as designed, remaining above the low-low level setpoint of 17%. Level settled out at the post-trip no-load target value of 25%.

That settled out at the no-load target value of approximately 557°F within thirty minutes after the trip. Tcold also behaved as designed, converging to the no-load temperature.

The condenser dump valves actuated to control steam pressure after the reactor trip. Neither the atmospheric dump valves, SG PORVs, nor main steam safety valves lifted during this transient.

Main feedwater [EIIS:SJ] was isolated shortly after reactor trip on low Tave. Both motor-driven auxiliary feedwater [EIIS:BA] pumps [EIIS:P] were manually started approximately two minutes after reactor trip. Operator control of auxiliary feedwater was proper and at no time was the SG low-low level setpoint encountered. Steam generator levels remained on scale at all times. After auxiliary feedwater was secured, main feedwater was reestablished by the operators.

Main steam [EIIS:SB] flow responded as designed, dropping to near zero post-trip.

No safety injection [EIIS: BP, BQ] actuation occurred during this event. Letdown was not isolated. The primary temperature decrease was within the technical specification limits. There was no abnormal release of radioactivity during this event, and no abnormal reactor coolant [EIIS:AB] leakage.

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

EVENT CAUSE

Opening either manual reactor trip switch on the control board will open the bypass breakers for both trains and open the respective train's main trip breaker, resulting in a reactor trip. The correct method of opening RTA would have been to open the breaker locally at the breaker compartment.

The test procedure had been used on July 13, 1984, to test the Main Reactor Trip Breakers, RTA and RTB, rather than the bypass breakers. One step of the procedure which is bypassed when only the bypass RTBs are to be tested contained the information which could have prevented the reactor trip.

CORRECTIVE ACTION

The procedure will be changed to separate Train A and Train B procedures and will include specific instructions to open the reactor trip breakers from the breaker compartment and not to use the control board switch.

This incident will be covered with all appropriate personnel.

DUKE POWER COMPANY

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HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

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August 17, 1984

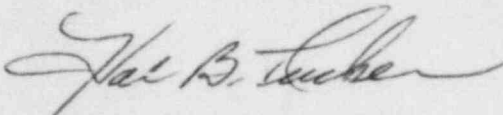
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Washington, D. C. 20555

Subject: McGuire Nuclear Station, Unit 2  
Docket No. 50-370  
LER 370-84-16

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 370/84-16 concerning an actuation of engineered safeguards features which is submitted in accordance with §50.73(a)(2)(iv). Initial notification of this event was made (pursuant to §50.72 Section (b)(2)(ii)) with the NRC Operations Center via the ENS on July 19, 1984. 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

SAG:glb

Attachment

cc: Mr. James P. O'Reilly  
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