

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) McGuire Nuclear Station, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 6 9	PAGE (3) 1 OF 0 2
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TITLE (4) Missed surveillance on Unit 1 and Unit 2 Reactor Coolant Pump Overcurrent Protective Devices

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 3	0 6	8 4	8 4	0 0 7	0 0 0	4	0 5	8 4	McGuire Unit 2		0 5 0 0 0 3 7 0
											0 5 0 0 0

OPERATING MODE (9) 5		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)							
	20.406(a)(1)(i)	50.38(e)(1)	50.73(a)(2)(v)	73.71(c)							
	20.406(a)(1)(ii)	50.38(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)							
	20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)								
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)								
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Phillip B. Nardoci, Licensing Engineer		AREA CODE 7 1 0 4	3 1 7 1 3 1 - 1 7 1 4 3 1 2

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	

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 March 6, 1984, it was determined that the 18 month functional testing of the reactor coolant pump (NCP) time delay overcurrent protective devices which had been performed for Unit 1 (on February 21, 1983) and Unit 2 (on January 13, 1984) was inadequate for compliance with Technical Specification Surveillance Requirement 4.8.4.1.a.1.b. NCP 1B and NCP 2A time delay (TD) overcurrent relays were subsequently declared inoperable (the two relays were chosen at random to meet the 10% testing requirements of Technical Specification 4.8.4.1.a.1)

Unit 1 was in Mode 5 and Unit 2 was in Mode 1 at 98% power at the time of discovery.

This missed surveillance is attributed to Procedural Deficiency, in that the procedure did not functionally test the TD overcurrent relay to actually trip the associated NCP.

A revised procedure was developed for both units. Power on Unit 2 was reduced to $\approx 15\%$ and the NCP 2A relay satisfactorily retested and declared operable (on March 7, 1984). All 8 TD overcurrent relays on Unit 1 will be functionally tested prior to entering Mode 4, and all 8 relays on Unit 2 will be tested at the next Unit 2 refueling.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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		
McGuire Nuclear Station, Unit 1	0 5 0 0 0 3 6 9	8 4	— 0 0 7	— 0 0	0 2	OF 0 2

TEXT (If more space is required, use additional NRC Form 365A's) (17)

On March 6, 1984, it was determined that the 18 month functional testing of the reactor coolant pump (NCP) [EIIS:P] time delay overcurrent protective devices [EIIS:RLY] which had been performed for Unit 1 (on February 21, 1983) and Unit 2 (on January 13, 1984) was inadequate for compliance with Technical Specification Surveillance Requirement 4.8.4.1.a.1.b. NCP 1B and NCP 2A time delay (TD) overcurrent relays were subsequently declared inoperable (the two relays were chosen at random to meet the 10% testing requirements of Technical Specification 4.8.4.1.a.1). Unit 1 was in Mode 5 and Unit 2 was in Mode 1 at 98% power at the time of discovery.

Each NCP has two time delay overcurrent protective relays; one on the 6,900 volt switchgear breaker [EIIS:BRK] located in the switchgear room and one on the NCP switchgear breaker in the Auxiliary Building [EIIS:NF]. These two breakers are in series and both provide overcurrent protection to the NCP electrical penetrations [EIIS:PEN]. Technical Specification Surveillance Requirement 4.8.4.1.a.1.b was written to verify this protection function. On February 21, 1983 preventive maintenance/periodic tests were performed on Unit 1 6,900 volt switchgear including 1TA-5, 1TB-5, 1TC-5, and 1TD-5 (feeder breakers to Unit 1 NCPs).

On January 13, 1984 the testing was performed on Unit 2 6,900 volt switchgear including 2TA-5, 2TB-5, 2TC-5, and 2TD-5 (feeder breakers to Unit 2 NCPs). However, the procedures used did not functionally test the TD overcurrent relay to actually trip the associated NCP. This was determined during a procedure review on March 6, 1984. Therefore, no test was performed on either unit to verify that the TD overcurrent protective relays would actually trip the NCPs.

At 1640 on March 6, 1984 one TD overcurrent relay on each unit was declared inoperable (NCP 1B and NCP 2A NCP switchgear breakers were randomly selected to be declared inoperable to meet the 10% as required by Technical Specifications 4.8.4.1.a). A revised procedure was written to test the overcurrent relay on NCP switchgear 2A. On March 7, 1984, NCP 2A was tripped by the TD overcurrent relay after Unit 2 power had been reduced to approximately 15%. The TD overcurrent device on NCP switchgear 2A circuit breaker was declared operable at 2105, and Unit 2 returned to full power. Prior to Mode 4 on Unit 1 and at the next refueling on Unit 2, all 8 TD overcurrent relays will be functionally tested per the "NC Pump Breaker Test".

The TD overcurrent relays had previously been calibrated and the circuit breakers serviced periodically. In conjunction with this service work, the breakers were repeatedly tripped via the trip coil.

Each time an NCP was tripped manually during normal operation (by the pushbutton on the control board) the trip coils on the NCP switchgear breakers were verified operable. This is the same trip coil used by the TD overcurrent relay to stop the NCP. This verified the operability of the trip coils to trip the NCP. The only item not verified periodically was the wiring connecting the overcurrent relay to the trip coil, which had been verified prior to Unit Operation.

Although the surveillance requirements of testing 10% of the overcurrent protective relays every 18 months was missed, the retesting verified that the TD overcurrent relay functioned as designed. The health and safety of the public were not affected by this incident.

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April 5, 1984

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

Subject: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
LER 369/84-07

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 369/84-07 concerning missed surveillance on Unit 1 and Unit 2 Reactor Coolant Pump 6,900 volt Switchgear Time Delay Overcurrent Protective Devices which is submitted in accordance with §50.73(a)(2)(i). This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

H.B. Tucker
Hal B. Tucker

PVN:glb

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
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Mr. W. T. Orders
NRC Resident Inspector
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