

## 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 3				
TITLE (4) Standby Battery Charger EVCS Placed in Service Without Operability Test																								
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	8	1	3	8	5	8	5	0	2	4	0	0	0	9	0	9	8	5	0 5 0 0 0					
OPERATING MODE (9) 1						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																		
POWER LEVEL (10) 1 0 0						20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)						
						20.405(a)(1)(i)				50.36(e)(1)				50.73(a)(2)(v)				73.71(c)						
						20.405(a)(1)(ii)				50.36(e)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
						20.405(a)(1)(iii)				X 50.73(a)(2)(i)				50.73(a)(2)(viii)(A)										
						20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)										
						20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)										
LICENSEE CONTACT FOR THIS LER (12)																								
NAME Jerry B. Day - Licensing														TELEPHONE NUMBER 7 0 4 3 7 3 - 7 0 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														
SUPPLEMENTAL REPORT EXPECTED (14)														EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR						
YES (If yes, complete EXPECTED SUBMISSION DATE)														X NO										

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

On July 23, 1985, it was determined that the operability surveillance test had not been performed on the station standby battery charger (EVCS). The standby charger can be aligned to supply vital loads when one of the four normal vital chargers is out of service. On August 13, 1985, it was found that the standby charger had been placed in service twice supplying vital loads on the channel 2 and channel 4 vital buses between the period of July 1 thru July 15, 1985.

Placing the untested standby battery charger EVCS in service violated Technical Specification surveillance requirement 4.8.2.1.2.c4, which requires that at least once per 18 months the battery charger is verified to supply at least 400 amperes at 125 volts DC for at least 1 hour.

This incident is attributed to Management/QA deficiency because a required surveillance schedule was not established for testing the standby charger.

The charger operated properly and provided adequate output current. If it had failed, the battery would have supplied power until an alternate source of power was connected.

8509170378 850909  
PDR ADOCK 05000369  
S PDR

JE 22/1

## 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			
McGuire Nuclear Station - Unit 1	0 5 0 0 0 3 6 9	8 5	- 0 2 4	- 0 0	0 2	OF	0 3

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

On July 23, 1985, it was determined that the operability surveillance test had not been performed on the standby battery charger (EVCS). The standby charger can be aligned to supply vital loads when one of the four normal vital chargers is out of service. On August 13, 1985, it was found that the standby charger had been placed in service twice supplying vital loads on the channel 2 and channel 4 vital buses between the period of July 1 thru July 15, 1985.

Placing the untested standby battery charger EVCS in service violated Technical Specification surveillance requirement 4.8.2.1.2.c4, which requires that at least once per 18 months the battery charger is verified to supply at least 400 amperes at 125 volts DC for at least 1 hour.

This incident is attributed to Management/QA deficiency because a required surveillance schedule was not established for testing the standby charger.

The 125 volt DC Vital Instrumentation and Control Power System provides power to all class 1E loads that are essential to reactor control and instrumentation. This system is shared by Unit 1 and Unit 2. The system consists of four normally independent channels of power. Safe plant operation requires that 3 of the 4 channels be operable at all times. The battery charger on each channel is independent and supplies power for both normal bus operation and battery float charging. Each charger is sized to supply its own bus loads plus another bus if required to back-up an inoperable charger. An interlock tie breaker scheme is installed to allow the connection of one charger to two buses for a maximum of 72 hours according to Technical Specification limits.

A standby charger is provided to replace an inoperable charger when maintenance or testing on a normal charger is expected to exceed the 72 hour time limit. This charger is connected to the affected bus thru another interlock scheme. It is sized to the same specifications as the normal chargers.

The normal battery chargers (EVCA, EVCB, EVCC, EVCD) were installed with electrical test connectors to facilitate the operational testing. The test requires that the charger supply 400 amperes at 125 volts DC for one hour. This testing was performed with the battery connected to the charger to provide adequate filtering for the output.

Technical Specification 4.8.2.1.2 did not specifically identify the standby charger surveillance testing requirements. Also, the Technical Specification Reference Manual did not address the standby charger. These documents were used to establish the equipment requiring periodic operational testing at the beginning of the PM/PT (Maintenance and Testing) program. This PM/PT program would have automatically generated a work request to perform the test at the required 18 month intervals. The program was not updated to include this test.

The engineering responsibility for the 125 Volt DC system was changed three times from 1982 thru 1984. The engineers involved with the system were not aware that the standby charger was being routinely placed in service. The operating procedure "Vital Battery Charger Shutdown" was changed to allow the option of using either the EVCS charger or the tie breakers to replace a normal charger which was out of service. Both options have apparently been used since this change was implemented.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)  McGuire Nuclear Station - Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 6 9 8 5 - 0 2 4 - 0 0 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

CORRECTIVE ACTIONS:

Immediate: Charger EVCS was declared inoperable.

Subsequent: Procedures were changed to allow testing EVCS without being connected to a battery and without test jacks.

Charger EVCS was tested and found acceptable.

The surveillance test has been added to the PM/PT program for charger EVCS.

Planned: The Technical Specification Reference Manual will be updated to include the standby battery charger EVCS in the appropriate sections.

SAFETY ANALYSIS:

The EVCS charger was placed in service at least two times in 1985 and provided adequate output current to the affected buses to maintain normal loads. In the event of a charger failure, the battery would have supplied power to the affected channel until an alternate power source was connected to the bus. A complete loss of one vital power supply channel would affect only one set of reactor protection instrumentation and controls. The three remaining channels would provide power to operate the vital loads required to safely shutdown both Unit 1 and Unit 2 if necessary.

The health and safety of the public were not affected by this incident.

DUKE POWER COMPANY

P.O. BOX 33189  
CHARLOTTE, N.C. 28242

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
(704) 373-4531

September 9, 1985

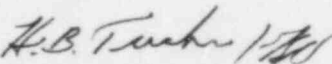
Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: McGuire Nuclear Station, Unit 1  
Docket No. 50-369  
LER 369/85-24

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 369/85-24 concerning a standby battery charger being placed in service without the operabililty test being performed. 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

JBD/hrp

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Mr. W. T. Orders  
NRC Resident Inspector  
McGuire Nuclear Station

INPO Records Center  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, Georgia 30339

M&M Nuclear Consultants  
1221 Avenue of the Americas  
New York, New York 10020

American Nuclear Insurers  
c/o Dottie Sherman, ANI Library  
The Exchange, Suite 245  
270 Farmington Avenue  
Farmington, CT 06032

IE22  
11