

Duke Power Company  
McGuire Nuclear Station  
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**DUKE POWER**

February 23, 1994

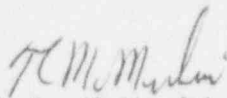
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: McGuire Nuclear Station Unit 2  
Docket No. 50-370  
Licensee Event Report 370/94-01  
Problem Investigation Process No.: 2-M94-0148

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached is Licensee Event Report 370/94-01 concerning a missed Technical Specification Surveillance. This report is being submitted in accordance with 10 CFR 50.73 (a) (2) (i). This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

  
T.C. McMeekin

TLP/bcb

Attachment

xc: Mr. S.D. Ebnetter  
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Mr. Victor Nerses  
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Washington, D.C. 20555

Mr. George Maxwell  
NRC Resident Inspector  
McGuire Nuclear Station

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NSRB Support Staff (EC 12-A)

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MRRB 7714) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545-0001 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME(1)

McGuire Nuclear Station, Unit 2

DOCKET NUMBER(2)

05000 370

PAGE(3)

1 OF 5

TITLE(4) A Technical Specification Surveillance Was Missed Due To An Inappropriate Action.

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)
01	24	94	94	01	0	02	23	94	N/A	05000
										05000

OPERATING MODE(9)	1	THIS REPORT IS SUBMITTED PURSUANT TO REQUIREMENTS OF 10CFR (Check one or more of the following)(11)								
POWER LEVEL(10)	100%	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)		
		20.405(a)(1)(ii)		50.36(c)(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)(x)				

LICENSEE CONTACT FOR THIS LER(12)

NAME	R. J. Deese, Manager, McGuire Safety Review Group	TELEPHONE NUMBER	
		AREA CODE	704
			875-4065

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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE(15)	MONTH	DAY	YEAR

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

On January 24, 1994, at 0520 with Unit 2 in Mode 1 (Power Operation) at 100%, Operations personnel removed the control power from the Unit 2 Train A (2A) Nuclear Service Water (RN) Pump for preplanned maintenance. This rendered the 2A Diesel Generator (DG) inoperable. With only one DG operable, Technical Specifications require that an off-site power source verification be completed within one hour and every eight hours thereafter until the DG is returned to operable status. The Control Room Senior Reactor Operator (CRSRO) did not initiate the required surveillance. At 1630 the problem was discovered and the surveillance was successfully performed. The off-site power sources were available during the time the DG was inoperable; however, the availability was not documented as required by procedures. This event is assigned a cause of Inappropriate Action due to the CRSRO not ensuring that the surveillance was performed. Corrective Actions include revising the Operations Management Procedures controlling tagouts and Technical Specification Action Item Log entries to emphasize responsibilities. Also, this event will be communicated to appropriate personnel to re-emphasize the importance of proper communications.

LICENSEE EVENT REPORT  
{LER} TEXT CONTINUATION

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FACILITY NAME(1)  McGuire Nuclear Station, Unit 2	DOCKET NUMBER(2)  05000 370	LER NUMBER(6)			PAGE(3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		94	01	0	2	OF	5

EVALUATION:

Background

The Nuclear Service Water System (RN) [EIIS:BI] is comprised of two 100% capacity pumps for each unit. The system is designed to circulate cooling water from Lake Norman to various pieces of essential and non-essential equipment. This equipment includes the two Emergency Diesel Generators (DG) [EIIS:DG], which are designed to provide back-up emergency power in the event off-site power is lost.

Technical Specification (TS) 3.8.1.1 states that two independent off-site power systems and two independent diesel generators must be available in Mode 1 (Power Operation), Mode 2 (Start-up), Mode 3 (Hot Standby), and Mode 4 (Hot Shutdown). Action item d. of that TS requires, in part, that with one DG inoperable, demonstrate the operability of the AC off-site power sources by verifying correct breaker alignments within one hour and at least once per eight hours thereafter. This surveillance is specified in PT/2/A/4350/25, Essential Auxiliary Power System Source Verification.

Description of Event

On January 23, 1994, at approximately 2300, the Operations (OPS) Unit 2 Supervisor brought a package of Work Orders (WOs) and associated tagout requests (R&Rs) to the Control Room [EIIS:NA] Senior Reactor Operator (CRSRO) for review and approval. These WOs and R&Rs were for preplanned maintenance work on the Unit 2 Train A (2A) DG, 2A RN pump, and other pieces of Train A equipment. Since the WOs and R&Rs were required to have the TSAIL number recorded on them, the CRSRO chose to make the TSAIL entries to expedite the review of the paperwork.

At approximately 0100, January 24, the CRSRO listed the 2A DG into the Technical Specification Action Item Log (TSAIL). This was done by stamping the TSAIL with the affected systems and TSs, and recording the associated WOs and R&Rs. The CRSRO then looked at each TS and reviewed actions required to be taken while these items were inoperable. A mental note was made concerning the required off-site power PT. The entry was not independently acknowledged at that time due to the fact that the equipment was not actually being declared inoperable until approximately 0500. The date (1/24/94) and time (0500) that the equipment was estimated to be taken out of service was recorded.

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After making all log entries and approving the WOs and R&Rs, the CRSRO contacted the Unit 2 Supervisor, confirmed the 0500 start time, and told him that the work package was ready to be picked up.

At 0445, the Designated CRSRO was relieved from duty by the Relief CRSRO and left the Control Room. While the Designated CRSRO was away, the Unit 2 Supervisor picked up the work package and proceeded with preparation for tagout of the equipment. The Unit 2 Supervisor brought R&R 24-25 (2A RN pump) to the Reactor Operator at the Controls (ROATC) for review and logging into the Reactor Operator Log book. This occurred at 0507. With all paperwork complete, the Unit 2 Supervisor proceeded to the Unit 2 Switchgear Room and began removing the equipment from service.

At 0520, the Designated CRSRO returned to the Control Room and resumed watch. When he returned, he realized that the Train A equipment had been removed from service. He then went to the TSAIL and initialed the entry for the equipment being taken out of service. However, he did not remember to initiate the off-site power surveillance and failed to get one of the ROs to independently acknowledge the entry. At 0600 the one hour surveillance requirement was missed.

During shift turnover at 0730, the Shift Supervisor (SS) discovered the entry had not been independently acknowledged. He pointed it out to the CRSRO who got the Relief CRSRO to independently acknowledge the entry. The fact that the DG was inoperable was known by the relieving ROATC, SS, Unit 2 Supervisor, and CRSRO and documented in the turnover logs. The surveillance was again missed at 1400. At 1630, Control Room personnel on the day shift determined that the off-site power surveillance had not been initiated. The PT was performed and PIP 2-M94-0148 was originated to document the problem.

**Conclusion**

This event is assigned causes of Improper or Inadvertent Actions. The first improper or inadvertent action was due to the action taken by the night shift CRSRO not being the best alternative. It occurred when the CRSRO chose to complete the TSAIL entries and R&R paperwork, and not report the surveillance requirement to others on his team. He chose to rely on his memory to remind him of the surveillance requirement at the time the first equipment was taken out of service (planned for 0500). When the R&R for the 2A RN Pump came to the Control Room for review, the "TS Log" block was already complete. It was not

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uncommon for this part of the R&R to be complete and equipment to already be listed in the TSAIL to facilitate the paperwork review. This caused the Control Room Staff (CRS) to assume that the required TS entries had been made and that any required surveillances had been initiated.

The second improper or inadvertent action was due to the night shift CRSRO not recognizing the need to take action when required, and failure to follow procedure. Failure to take action occurred when the night shift CRSRO initialed the TSAIL. He failed to initiate the surveillance as required. The failure to follow procedure occurred when he did not get the entry independently acknowledged.

The surveillance was again missed at 1400. The failure of the day shift CRS to perform the required surveillance is also attributed to the inappropriate actions by the night shift CRSRO. The oncoming CRS are not required to look up each item previously logged in the TSAIL to ensure the required TS actions were initiated by the outgoing CRS; therefore, they did not immediately recognize the missed surveillance.

The CRS on duty when the DG was taken out of service met as a team and thoroughly reviewed the event. They identified the inappropriate actions and discussed the need for proper communications. Planned corrective actions include a review of Operations Management Procedure (OMP) 2-5, Technical Specifications Action Items Logbook, and OMP 2-17, Tagout/Removal and Restoration (R&R) Procedure to clarify the requirements associated with review, approval, and logging of TSAIL items. Changes will be made to assure log entries are made in a more consistent manner and reliance on memory is minimized. Also, this event will be reviewed with all licensed operators emphasizing the need for proper communications.

A review of the Operating Experience Program and Problem Investigation Process data bases for the past 24 months revealed one Technical Specification Violation due to a missed surveillance. However, this event involved a missed technical specification due to an inappropriate TS interpretation. This event is documented in report number 369/93-11. These two events are not related.

This event is not considered to be recurring.

This event is not Nuclear Plant Reliability Program (NPRDS) reportable.

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		94	01	0	5	OF	5

There were no radiation overexposures, or uncontrolled releases of radioactive material resulting from this event.

**CORRECTIVE ACTIONS:**

- Immediate:**
- 1) OPS Control Room Personnel initiated PT/2/A/4350/25, Essential Auxiliary Power System Source Verification.
  - 2) OPS Personnel initiated PIP 2-M94-0148.
- Subsequent:**
- 1) CRS on duty when the DG was taken out of service, met as a team, identified the inappropriate actions, and discussed the need for proper communications.
- Planned:**
- 1) OPS personnel will review this event with all licensed personnel emphasizing the need for proper communications.
  - 2) OPS personnel will review OMP 2-5, Technical Specifications Action Items Logbook, and OMP 2-17, Tagout/Removal and Restoration (R&R) Procedure, and make changes to clarify responsibilities and assure consistent logging practices.

**SAFETY ANALYSIS:**

The DG was declared inoperable for a period of 11 hours and 35 minutes without the off-site power surveillance being performed. During this time the two independent off-site power sources required by Technical Specification 3.8.1.1 were available. This violation of TS<sub>a</sub> is considered technical in nature due to failing to document the surveillance. There were no situations requiring the operation of the DGs during this period of time. Also, there are numerous alarms generated when one of the off-site power sources is lost, and the reactor operators routinely observe the status of the electrical power distribution system throughout their shift. For these reasons and the fact that the CRS was aware of the DG being inoperable, this event is not considered significant.

At no time were the health and safety of the public or plant personnel affected by this event.