

## 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 5								
TITLE (4) Missed Surveillance on Source Range Neutron Flux Monitors																						
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	5	0	7	8	5	8	5	0	1	4	0	0	0	6	2	6	8	5	0 5 0 0 0 0			
OPERATING MODE (9) 6			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)				20.405(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)(vi)				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 Day - Licensing										TELEPHONE NUMBER												
										AREA CODE 7 0 4 3 7 3 - 7 0 3 1 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 May 7, 1985, core alterations were started on Unit 1 without completing the required surveillance on source range neutron flux monitors. Technical Specifications require an operational test on these monitors eight hours prior to core alterations and every seven days while the unit is in Mode 6. The test was also not completed within seven days of entry into Mode 6, and one of the seven day surveillances was missed while in Mode 6. A review of previous outages showed that this surveillance requirement had not been adequately met in the past.

Unit 1 was in Mode 6 (refueling) at the time of the event.

This incident is attributed to an Administrative/Procedural Deficiency. The history of problems in meeting this surveillance requirement indicates this is the primary problem. A Personnel Error was identified as contributing to the missed surveillance on May 7, 1985. A shift supervisor signed off a procedure judging the requirement to have been met.

A controlling procedure will be developed to insure that these surveillances are not missed during future outages.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Technical Specification (T.S.) surveillance requirement 4.9.2 requires an analog channel operation test on the source range monitors (SR) at the following frequencies:

1. Within eight hours prior to core alterations.
2. At least once per seven days.

The surveillance requirement is applicable in Mode 6. The requirement of (1) above was not performed prior to core alterations on May 7, 1985. Surveillance requirement (2) above was not met prior to entering Mode 6 and one of the seven day surveillances was missed while in Mode 6.

SR SURVEILLANCE: EIGHT HOURS PRIOR TO CORE ALTERATIONS

On May 6, 1985, core alterations were started. This consisted of unlatching the control rods. The SR surveillance test had not been completed within eight hours of beginning core alterations. Shift Supervisor A signed off step 6.5 of the Maintenance procedure "Control Rod Drive Shaft Latching and Unlatching" prior to core alterations. This step states "Applicable surveillance requirement 4.9.2 of Technical Specification 3.9.2 has been met." The following led to Shift Supervisor A erroneously signing off this step.

Prior to seeing the Maintenance procedure, Shift Supervisor A signed off step 2.5, Enclosure 4.3 of the Operations procedure "Controlling Procedure for Unit Shutdown." This step included a checklist of Technical Specifications that had to be met prior to core alterations. This checklist did not include T.S. 3.9.2. When step 2.5 was completed, Shift Supervisor A thought that Operations paperwork was in order, and that core alterations could commence. Because Shift Supervisor A thought that the Operations procedure covered the required T.S.s, he concluded the Maintenance procedure checklist duplicated Operations paperwork.

This is attributed to Personnel Error because step 6.5 of the unlatching procedure is specific in addressing the surveillance requirement. It was signed off without judging the step to be complete.

SR SURVEILLANCE: SEVEN DAY

T.S. 4.0.4 states:

"Entry into an Operational Mode or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified."

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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

The surveillance requirement of 4.9.2.c ("An analog channel operational test at least once per seven days") is required to be within its stated surveillance interval prior to Mode 6. Compliance personnel state that this means the SR monitors must be tested within seven days of entry into Mode 6. This requirement was not met prior to Unit 1 entering Mode 6 on May 1, 1985. The seven day surveillance was also missed after core alterations stopped, but while Unit 1 was still in Mode 6.

When the unit is in Mode 2, 3, 4, or 5, T.S. 4.3.1.1 requires the analog channel operational test (on the SR monitors) on a monthly interval. Planning's preventative maintenance/periodic test (PM/PT) program schedules this test on a monthly basis, regardless of plant status. Planning personnel state that they did not know this surveillance was required weekly in Mode 6. They thought that the weekly surveillance interval applied only during core alterations. (Mode 6 is defined in T.S.s as reactivity (Keff)  $\leq 0.95$ , 0% rated thermal power, average coolant temperature  $\leq 140$  degrees-F, and fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed. Core alterations is defined as the movement of manipulation of any component within the reactor pressure vessel head removed and fuel in the vessel.)

The Operations procedure "Controlling Procedure for Unit Shutdown" step 2.2 of Enclosure 4.3 includes: "Verify the following Tech Spec prior to entering Mode 6: Source Range Instruments per T.S. 3.9.2". This step had been signed off. It only specifies the LCO (3.9.2) and not the associated surveillance requirement (4.9.2). The LCO for T.S. 3.9.2 states:

As a minimum, two Source Range Neutron Flux Monitors shall be operable and operating with alarm setpoints at 0.5 decade above steady-state count rate, each with continuous visual indication in the control room and one with audible indication in the containment and control room.

Operations personnel state that to verify the LCO is met the following is required:

1. Verify that the instruments are not logged inoperable,
2. Verify all visual and audible indication is correct, and
3. Verify IAE had set the alarm setpoints at 0.5 decade above steady-state count rate the last time the SR instruments were tested (not necessarily within the last seven days).

Operations personnel state that they do not always check to see if all surveillances are within their required intervals when verifying an LCO is met. Procedures specifically stating required surveillances, Planning personnel, and Operations staff personnel involved in scheduling periodic tests are depended upon to maintain T.S. surveillances.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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

The surveillance requirement to complete the SR analog channel operational test is the responsibility of IAE. Planning schedules IAE's work, but Planning requires Operations to initiate the request to schedule the test eight hours prior to core alterations or within seven days of entry into Mode 6.

To determine if the problem with this surveillance had been a problem in the past, or is an isolated incident, the last refueling outages for both units were reviewed. Between these two outages, the SR operational test had been missed at least once for each of the following frequency requirements:

1. Within seven days of entry into Mode 6,
2. Within eight hours of core alterations, and
3. Every seven days while in Mode 6.

This indicates a lack of adequate control to ensure the surveillance requirement is met.

CORRECTIVE ACTION:

Immediate: The source range neutron flux monitors were tested.

Subsequent: None.

Planned: Prior to the next refueling outage, an Operations procedure will be developed to be used as a controlling procedure for entry into Mode 6 (from Mode 5 or from core unloaded/no mode) and starting core alterations. This procedure will specify all surveillance and LCO requirements that must be met prior to Mode 6 and prior to core alterations. This procedure will be controlled by Operations, but will include verifying that other groups have performed their required activities prior to Mode 6 and prior to core alterations. (It will include ensuring that IAE has completed the surveillance requirements of T.S. 3.9.2 prior to core alterations and prior to Mode 6.)

Before the next refueling outage, Planning and IAE will develop a method to ensure that the seven day surveillance requirement of T.S. 3.9.2 is met while in Mode 6. Planning will depend on Operations to notify them to perform the surveillance within seven days of entry into Mode 6 and within eight hours of core alterations. After Operations notification, Planning will have responsibility to ensure the surveillance is scheduled every seven days.

During outages involving entry into Mode 6, Integrated Scheduling will include in their Project 2 program (Outage Scheduling Computer Program) when T.S. surveillance require-



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

ment 4.9.2 is required (within seven days of entry into Mode 6 and within eight hours of core alteration). This will act as a reminder to Planning.

SAFETY ANALYSIS:

The source range neutron flux monitors were capable of performing their design functions throughout core alterations. After it was discovered that the surveillance had been missed, the operational tests were performed and the test results showed that the SR monitors operated correctly as found.

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

**DUKE POWER COMPANY**

P.O. BOX 33189

CHARLOTTE, N.C. 28242

**HAL B. TUCKER**

VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
(704) 373-4531

June 26, 1985

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

Subject: McGuire Nuclear Station, Unit 1  
Docket No. 50-369  
LER 369/85-14

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 369/85-14 concerning missed surveillance on source range neutron flux monitors. 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

JbD:smh

Attachment

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Document Control Desk

June 26, 1985

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

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

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

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