

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) McGuire Nuclear Station - Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 6 9 1 OF 0 4

PAGE (3)

TITLE (4)

Discovery of Incorrect Valve Position Indicator

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)								
1	0	0	9	8	5	8	5	0	3	0	0	5	0	0	0	0	0	0
1	0	0	9	8	5	8	5	0	3	0	0	5	0	0	0	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)																																			
1	<table border="1"><thead><tr><th>20.402(b)</th><th>20.405(c)</th><th>50.73(a)(2)(iv)</th><th>73.71(b)</th></tr></thead><tbody><tr><td>20.405(a)(1)(i)</td><td>50.36(c)(1)</td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.405(a)(1)(ii)</td><td>50.36(c)(2)</td><td>50.73(a)(2)(vi)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td></tr><tr><td>20.405(a)(1)(iii)</td><td>X 50.73(a)(2)(ii)</td><td>50.73(a)(2)(vii)(A)</td><td></td></tr><tr><td>20.405(a)(1)(iv)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(vii)(B)</td><td></td></tr><tr><td>20.405(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(ix)</td><td></td></tr></tbody></table>												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)(ii)	50.73(a)(2)(vii)(A)		20.405(a)(1)(iv)	50.73(a)(2)(iii)	50.73(a)(2)(vii)(B)		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	
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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

AREA CODE

7 1 0 1 4 3 1 7 1 3 1 - 1 7 1 0 1 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)

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 October 9, 1985, at approximately 1400, it was discovered that valve 1RN-33 (RN Pump 1A Discharge Crossover Isolation Valve) was in the "locked closed" position instead of "locked open". The valve (a manually operated butterfly valve) was placed in the indicated open position on October 7, 1985, to cross-connect the Unit 1 and Unit 2 Train A RN (Nuclear Service Water) discharge headers. The local valve position indicator was reversed showing the valve open when it was actually closed and vice-versa.

The Unit was in Mode 1 at 100% power at the time of the incident.

It cannot be determined when and how the valve position indication was reversed. The valve was opened and properly labeled. The manually operated butterfly valves in the Component cooling, chilled water, and nuclear service water systems for both units were checked for position indication; four discrepancies were identified (2 missing indicators, 1 broken, 1 incorrect).

The incident affected only Train 'A' of Unit 1; Train 'B' was operable throughout the event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
McGuire Nuclear Station - Unit 1	0500036985	0	30	00	02	OF 04

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

On October 9, 1985, at approximately 1400, it was discovered that valve 1RN-33 (RN Pump 1A Discharge Crossover Isolation Valve) was in the "locked closed" position instead of "locked open". The valve was placed in the indicated open position on October 7, 1985, to cross-connect the Unit 1 and Unit 2 Train A RN (Nuclear Service Water) discharge headers. The local valve position indicator was reversed showing the valve open when it was actually closed and vice-versa.

Unit 1 was in Mode 1 at 100% power at the time of the incident.

It cannot be determined when and how the valve position indication was reversed.

Background

On October 7, 1985, a procedure change was made to operating procedure "Nuclear Service Water System" to cross-connect Unit 1 and Unit 2 RN Train A together. This action was taken due to a low flow problem occurring on RN Pump 1A. Cross-connecting both units RN Train A required valves 1RN-33 and 1RN-34 to be opened. Both valves are butterfly valves. The valve disc moves only 90° from open (disc is parallel to flow) to closed (disc is perpendicular to flow). A pointer is attached to the valve shaft and "open" and "closed" position labels are mounted on the operator so the position of the valve may be known.

Description of Event

On October 9, 1985, at approximately 1315, RN Pump 2A was stopped so that flow data could be taken on RN Pump 1A (the discharge header for each pump was thought to have been tied together.) However, when RN Pump 2A was stopped, the pressure in the RN Pump 2A discharge header decreased to zero, while the pressure in the RN Pump 1A discharge header remained normal. An investigation began to determine why the discharge headers were not cross-connected.

The investigation revealed that the position indicator for valve 1RN-33 was off 90°, so when the valve was actually open it indicated "closed" and vice-versa. The valve was opened; the flow data was taken; and the indicator was corrected to read actual valve position.

"Open" and "Closed" labels were first placed on 1RN-33 in November of 1980. The indicator (pointer) was already mounted on the valve but no position labels existed.

Work was then performed in July of 1984 to orient the indicator to read the correct valve position. Personnel associated with this work could not remember how the valve position indicator was discovered reversed, or any specifics about the work performed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/88

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

It cannot be determined how long this discrepancy has existed. Both work requests document that the indicator was oriented to correctly read the position of the valve. No work had been performed on 1RN-33 since the work in July of 1984 was completed.

A review of past incident reports indicates only one other incident of faulty valve position indication (RO 370/83-59). This problem was caused by torque problems with motor operated valve 2NI-267A. Therefore, this is considered to be an isolated incident.

CORRECTIVE ACTIONS:

Immediate: 1RN-33 was opened.

- Subsequent:
1. The NRC was notified of the incident.
 2. The position indicator for 1RN-33 was corrected.
 3. Personnel verified that RN Train B cross-connect valves were indicating actual valve positions.
 4. All manually operated butterfly valves on Component Cooling (KC), Chilled Water (YC), and RN systems (both units) were checked for position indication problems. The results were:
 - a. Missing indicator on 1KC-129; work request submitted.
 - b. Missing indicator on 1YC-9; work request submitted
 - c. Indicator incorrect on 1RN-48 (did not affect RN operability); work request submitted.
 - d. Broken indicator on 2KC-16; work request submitted.

None of the above work has been completed at this time.

SAFETY ANALYSIS:

Valve 1RN-33 is not used in normal unit operation. It is normally locked closed and is designed to be used only to cross-connect the Unit 1 and Unit 2 Train A of RN. Two valves are required to be open in order to cross-connect these trains, the other valve had correct indication. This valve was thought to have been locked open on October 7, 1985 as required by operating procedure "Nuclear Service Water System". However, because the position indicator on 1RN-33 was indicating the opposite position, it must be assumed that the valve was closed until October 9, 1985.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Subsequent analyses submitted to NRC (Reference Hal B. Tucker's October 23, 1985 letter to Dr. J. Nelson Grace, Regional Administrator, Region II) established that RN pump 1A was operable and capable of performing the design function, even with degraded flow.

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

November 8, 1985

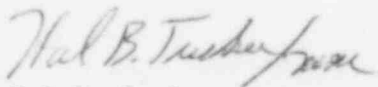
Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: McGuire Nuclear Station, Unit 1
Docket No. 50-369
LER 369/85-30

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 369/85-30 concerning the discovery of an incorrect valve position indicator. 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

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

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

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

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

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