

Duke Power Company
McGuire Nuclear Generation Department
12700 Hagers Ferry Road (MG01VP)
Huntersville, NC 28078-8985

T. C. McMEEKIN
Vice President
(704)875-4800
(704)875-4809 Fax



DUKE POWER

DATE: September 13, 1995

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 370/95-03 , Revision 0
Problem Investigation Process No.: 2-M95-1503

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached Licensee Event Report 370/95-03 concerning a momentary loss of Containment Integrity. This report is being submitted in accordance with 10 CFR 50.73 (a) (2) (v). 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

RJD/bcb

Attachment

cc: Mr. S.D. Ebnetter
Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta St., NW, Suite 2900
Atlanta, GA 30323

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

Mr. Victor Nerses
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Mr. George Maxwell
NRC Resident Inspector
McGuire Nuclear Station

9509190086 950913
PDR ADOCK 05000370
S PDR

JE22.1

bxc: B.L. Walsh (EC11C)
Zack Taylor (CNS)
G.A. Copp (EC050)
J.I. Glenn (MG02ME)
P.R. Herran (MG01VP)
Cindy Davis (MG01CP)
J. E. Burchfield (ONS Reg Compliance)
G.H. Savage (EC06E)
G.B. Swindlehurst (EC11-0842)
M.S. Tuckman (EC07H)
R.F. Cole (EC05N)
D.B. Cook (EC13A)
Tim Becker (PB02L)
P.M. Abraham (EC08I)
Ronnie White (MG01VP)
L.V. Wilkie (ON03SR)
D.P. Kimball (CN05SR)
NSRB Support Staff (EC05N)
Kay Crane (MG01RC)
Rich Casler (EC05N)

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 (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)

05000370

PAGE (3)

1 of 3

TITLE (4)
Momentary Loss Of Containment Integrity

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 NAME	DOCKET NUMBER(S)
08	15	95	95	- 03	- 0	09	13	95	N/A	05000
										05000

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)	100 %	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.405(c)	50.36(c)(1)
									50.36(c)(2)
									50.73(a)(2)(i)
									50.73(a)(2)(ii)
									50.73(a)(2)(iii)
									50.73(a)(2)(iv)
									50.73(a)(2)(v)
									50.73(a)(2)(vi)
									50.73(a)(2)(vii)
									50.73(a)(2)(viii)(A)
									50.73(a)(2)(viii)(B)
									50.73(a)(2)(ix)
									50.73(a)(2)(x)

LICENSEE CONTACT FOR THIS LER (12)

NAME

Rickey 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
P2h	IAE	Linear Actuating Cylinder	Raco International	NO					

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)

Unit Status : August 15, 1995. Unit 2- Mode 1, (Power Operations), 100 percent power

Containment Integrity was momentarily lost when the seals on the Auxiliary Building door of the Unit 2 Upper Personnel Airlock inadvertently deflated while the Reactor Building door was open for normal ingress of Station personnel and equipment. The Reactor Building door was immediately closed and sealed by personnel in the airlock.

EVENT CAUSE: This event is assigned a cause of a Degraded Subcomponent Contributing to Failure. A worn Linear Actuating Cylinder allowed inadvertent actuation of a limit switch which caused the seals to deflate on the door that was being used to maintain Containment Integrity.

CORRECTIVE ACTIONS:

- Compare the current condition of all personnel airlock doors with the design criteria to identify and correct discrepancies.
- Interim measures will be developed for Personnel Airlock Door operation until door alignment problems are corrected.
- Perform an assessment to address improvements to operation, maintenance, and ownership of containment airlock doors.

NRC FORM 365A 89)		U.S. NUCLEAR REGULATORY COMMISSION(6-		APPROVED OMB NO. 3150-0104 EXPIRES:5/31/95													
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				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 (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503													
FACILITY NAME (1) McGuire Nuclear Station		DOCKET NUMBER (2) 05000370		<table border="1"> <tr> <th colspan="3">LER NUMBER (6)</th> <th>PAGE (3)</th> </tr> <tr> <th>YEAR</th> <th>SEQUENTIAL NUMBER</th> <th>REVISION NUMBER</th> <th></th> </tr> <tr> <td>95</td> <td>03</td> <td>0</td> <td>2 OF 4</td> </tr> </table>		LER NUMBER (6)			PAGE (3)	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		95	03	0	2 OF 4
LER NUMBER (6)			PAGE (3)														
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER															
95	03	0	2 OF 4														

EVALUATION:

Background

The Linear Actuating Cylinder (LAC) referred to in this report drives a door [EIIS:DR] retaining pin into a hole in the door jamb to keep the door from moving after it is closed such that the door seals are properly positioned over their sealing surfaces.

Description of Event

August 15, 1995. Unit 2, (Power Operations), 100% power

- While plant personnel were accessing upper containment for maintenance activities, problems were experienced with getting the Containment Upper Personnel Airlock [EIIS:AL] Auxiliary Building [EIIS:NF] door (AB door) seals [EIIS:SEAL] to inflate.
- The AB door seals inflated after repeated attempts to actuate the door sealing circuit.
- The Containment Upper Personnel Airlock Reactor Building door (RB door) was unsealed and opened.
- An interlock in the door operating circuit prevents one door from unsealing if the other door is unsealed. In this case, the circuitry for the AB door was satisfied and allowed the unsealing and opening of the RB door.
- The interlock limit switch [EIIS:33] changed state due to a defect in the lower LAC on the AB door which allowed the seals on the AB door to deflate. This was caused by a vibration resulting from the ongoing activity in the airlock.
- The maintenance personnel in the airlock immediately recognized the effect on Containment Integrity of both doors being unsealed at the same time and closed and resealed the RB door.

Conclusion

- There were no personnel injuries, radiation overexposures, or uncontrolled releases of radioactive material resulting from this event. This event is not Nuclear Plant Reliability Database (NPRDS) reportable.
- This event is assigned a cause of Degraded Subcomponent Contributing to Failure.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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 (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) McGuire Nuclear Station	DOCKET NUMBER (2) 05000370	LER NUMBER (6)			PAGE (3)
		YEAR 95	SEQUENTIAL NUMBER 03	REVISION NUMBER 0	
					3 OF 4

- A worn LAC component allowed excessive travel of the LAC shaft to position a limit switch actuating cam such that the seals inflated and satisfied the interlock for the RB door but subjected the switch to inadvertently changing state when it experienced slight vibration.
- Past experiences with airlock door failures have not resulted in a loss of Containment Integrity, but corrective actions were not effective in preventing failures of the LAC components.
- A search of the PIP and OEP data base for the past 24 months revealed no other losses of Containment Integrity due to airlock door failures. However, there is evidence of repeated problems with Containment Personnel Airlock doors.

CORRECTIVE ACTION:**Immediate:**

1. The RB door was closed and sealed by personnel in the airlock, who were present for the duration of the event.

Subsequent:

1. The defective LAC was replaced.

Planned:

1. Engineering personnel will compare the current physical condition of all Personnel Airlock doors with the design criteria and implement actions to correct any additional discrepancies noted.
2. Engineering personnel will establish interim measures for Containment Personnel Airlock door operation until door alignment problems are corrected.
3. McGuire Safety Review Group will perform an assessment to address operation, maintenance, and ownership of containment airlock doors.

SAFETY ANALYSIS:

No unplanned releases of radioactivity occurred as a result of this event. The health and safety of McGuire site personnel and the public were not affected by this event.

NRC FORM 365A 80)		U.S. NUCLEAR REGULATORY COMMISSION(6-		APPROVED OMB NO. 3150-0104 EXPIRES:5/31/95												
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				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 (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503												
FACILITY NAME (1) McGuire Nuclear Station		DOCKET NUMBER (2) 05000370		<table border="1"> <tr> <th colspan="3">LER NUMBER (6)</th> <th rowspan="2">PAGE (3)</th> </tr> <tr> <th>YEAR</th> <th>SEQUENTIAL NUMBER</th> <th>REVISION NUMBER</th> </tr> <tr> <td>95</td> <td>03</td> <td>0</td> <td rowspan="2">4 OF 4</td> </tr> </table>		LER NUMBER (6)			PAGE (3)	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	95	03	0	4 OF 4
LER NUMBER (6)			PAGE (3)													
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER														
95	03	0	4 OF 4													

The impact to Nuclear Safety of this event is considered to be negligible for the following reasons:

- Timely and appropriate action by personnel in the airlock resulted in the duration of the loss of Containment Integrity being less than 1 minute.
- The chance of an accident occurring during this time which would have resulted in a release that could have exceeded 10CFR Part 100 limits was minimal and did not exceed the allowable Technical Specification time to comply with the Limiting Condition for Operation upon loss of Containment Integrity.
- Any release which could have occurred during this event would have been monitored and controlled by the Auxiliary Building ventilation system.