NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
McGUIRE NUCLEAR STATION, UNIT 2	0 5 0 0 0 3 7 0	1 OF 0 7

TITLE (4) A TECH. SPEC. REQUIRED FIRE DOOR WAS BLOCKED OPEN WITHOUT COMPENSATORY ACTIONS DUE TO PERSONNEL ERROR.

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 6	1 5	8 8	8 8	0 0 5	0 0	0 8	0 8	8 8	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	0	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)(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	TELEPHONE NUMBER
	AREA CODE
STEVEN E. LE ROY, LICENSING	7 0 4 3 7 3 - 6 2 3 3

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)		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 06/15/88 at approximately 0115, a Security officer performing routine fire door inspections, noticed the southwest door of the 2B Diesel Generator (DG) room was blocked open and no Fire Watch Tag was posted. The officer immediately notified Operations (OPS). At 0129, OPS declared the door inoperable, verified that fire detectors in 2B DG room were operable, posted a Fire Watch Tag on the door, and established an hourly fire watch patrol as required by Technical Specification (TS) 3.7.11. The door had been left blocked open by Construction and Maintenance Department (CMD) personnel who exited the area at approximately 1630 on 06/14/88. When CMD returned to continue work at approximately 0730 on 06/15/88, they assumed the fire watch from OPS and properly maintained it through job completion. This event is assigned a cause of Personnel Error because CMD personnel failed to recognize the need to establish a fire watch during the time they had a TS required fire door blocked open. CMD North will reiterate to CMD North paint crews the procees of identifing fire doors and actions that should be taken, and will revise the appropriate procedure to include a precaution against opening fire doors for ventilation.

IE22
1/1

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
McGUIRE NUCLEAR STATION, UNIT 2	0 5 0 0 0 3 7 0	8 8	— 0 0 5	— 0 0	0 2 OF 0 7

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

INTRODUCTION:

On June 15, 1988 at approximately 0115, a Security officer, while performing routine fire door inspections, noticed the southwest door [EIIS:DR] of the 2B Diesel Generator (DG) room was blocked open and no Fire Watch Tag was posted. The Security officer immediately notified Operations Control Room personnel of the condition of the door.

At 0129, Operations Control Room personnel declared the door inoperable, verified fire detectors [EIIS:DET] in 2B DG room operable, posted a Fire Watch Tag on the door, and established an hourly fire watch patrol as required by Technical Specification (TS) 3.7.11. The door had been left blocked open by Construction and Maintenance Department (CMD) personnel who exited the area at approximately 1630 on June 14, 1988. When CMD personnel returned to continue work at approximately 0730 on June 15, 1988, they assumed the fire watch from Operations personnel and properly maintained it through job completion.

Unit 2 was in a refueling outage in No Mode (no fuel was in the Reactor Vessel) at the time of this event.

This event is assigned a cause of Personnel Error because CMD personnel failed to recognize the need to establish a fire watch during the time they had a TS required fire door blocked open.

EVALUATION:

Background

The walls enclosing the DG room are all fire barriers, and therefore, the doors in these walls are all fire doors. There are four fire doors in 2B DG room, one at each corner of the room. The double door at the southwest corner of the room is designated PD-8 and is a normally locked, handwheel operated security door.

There is a sign posted on the outside of the westernmost door of double door PD-8 labeling it "TECH SPEC FIRE DOOR DO NOT BLOCK" and requiring notification of the Control Room Senior Reactor Operator (SRO) if circumstances require it to be blocked. There are two signs, each stating this same information on the inside of both of the double doors. There are also two signs outside of door PD-8 labeling it a "Security Door" and giving a telephone number to request permission for access from Security personnel.

According to Security procedure EXAO-03, Security Access Areas, the DG room doors are declassified and not considered security controlled doors below Mode 4 (Hot Shutdown). When a security door is declassified, Security personnel place the computer points that monitor the doors positional status out of service. To return a declassified door to service, Security personnel must do a search of the area, put the associated computer points in service, and verify the operability of these points.

TS 3.7.11 requires all fire barriers separating portions of redundant systems important to safe shutdown within a fire area to be operable at all times. With a required fire barrier and/or sealing device inoperable: 1) a continuous fire watch must be established within one hour; or, 2) the fire detectors on at least one side of the inoperable assembly must be verified operable and an hourly fire watch patrol established.

Station Directive 2.11.5, McGuire Nuclear Station Fire Penetrations, states that fire doors or penetrations that are to be made inoperable by opening or by using as a pathway for temporary hoses and cables shall be reported to the Control Room SRO by the responsible personnel prior to beginning work. Also, if a fire door or penetration is found or made to be inoperable, the personnel involved are responsible for notifying the Control Room SRO.
The Control Room SRO is then responsible for Technical Specification logging, determining fire watch requirements, initiating Fire Watch Tags, and providing Fire Watch Tags to the responsible personnel for hanging. The Fire Watch Tags are a means of documenting the fire watches.

Description of Event

On June 13, 1988 at approximately 0800, CMD personnel arrived at the 2B DG room with intentions of sandblasting and painting a starting air [EIIS:LC] tank [EIIS:TK]. Mechanical Maintenance (MNT) personnel were performing preventative maintenance on the 2B Diesel Engine [EIIS:DG]. MNT personnel had blocked open door PD-8 and had established a fire watch with the required Fire Watch Tag posted at the door to facilitate transporting large tools used for the diesel engine work to and from the job site. A large portable fan unit was placed in door PD-8 to provide additional ventilation for MNT personnel in the room. Within the room, MNT personnel also had a Clean Zone set up and a sign posted on doors PD-8 and 715A requesting personnel entering the 2B DG room to check in with MNT personnel and sign the log at a certain desk in the room.

CMD personnel were unable to commence sandblasting because 2B Diesel Engine needed to be closed up to keep out sand and dust. Before leaving, CMD personnel started setting up of some sandblasting and ventilation equipment in preparation to blast the next day. MNT personnel finished closing up the engine, removed the clean zone boundaries, closed door PD-8, removed the Fire Watch Tag, and logged the termination of the fire watch at 1900 with Operations Control Room personnel.

On June 14, 1988 at approximately 0745, CMD personnel returned to 2B DG room to continue setting up blasting equipment and commence sandblasting activities. CMD personnel were not aware that door PD-8 was a TS fire door and would require a fire watch to be legally blocked open. They commenced operation of the sandblasting equipment with air hoses and a 12 inch flexible ventilation duct running through the door. Two MNT personnel and two vendor personnel were working on other jobs in 2B DG room during the time CMD personnel were in the room on June 14.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
McGUIRE NUCLEAR STATION, UNIT @	0 5 0 0 0 3 7 0	8 8	— 0 0 5	— 0 0	0 4 OF 0 7

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

MNT personnel exited and entered through door PD-8 several times, but did not notice door PD-8 was not being covered by a fire watch. They were aware it was a fire door and requires a fire watch to be blocked open. Sandblasting equipment problems off and on throughout the day prevented CMD personnel from completing sandblasting of the starting air tank, so they planned to continue work the next day. They left the air hoses and ventilation duct run through door PD-8 when they exited the 2B DG room at approximately 1630.

On June 15, 1988 at approximately 0115, a Security officer, while performing routine daily fire door inspections, noticed that door PD-8 was blocked open and no Fire Watch Tag was posted. The Security officer immediately notified Operations Control Room personnel of the condition. After checking the Unit 2 Technical Specification Action Item Logbook and Fire Barrier Tag Logbook and finding no reason or person responsible for the open door PD-8, Operations Control Room personnel declared the door inoperable at 0129. As specified by McGuire TS 3.7.11, Operations personnel verified the operability of the fire detectors in 2B DG room, posted a Fire Watch Tag on the door, and established an hourly fire watch patrol.

On June 15, 1988 at approximately 0730, CMD personnel returned to the 2B DG room and were immediately notified by Operations personnel of the breach of TS required fire door PD-8 and were told that they should assume the fire watch from Operations personnel if work required the door to continue to be blocked open. CMD personnel then took over responsibilities for the fire watch and properly maintained it through job completion on June 17, 1988.

Conclusion

CMD personnel, in failing to recognize the need to establish a fire watch during the time which door PD-8 was blocked open, are assigned a Personnel Error.

On June 14, 1988 at approximately 0745, CMD personnel returned to 2B DG room to continue setting up blasting equipment and commence sandblasting activities. CMD personnel stated that when they arrived, door PD-8 was still blocked open with a flexible ventilation duct and air hoses, which they stated had been placed and left through the doorway on June 13, 1988.
CMD personnel believe that the MNT personnel who had been working in 2B DG room on July 13, 1988 left door PD-8 open overnight. However, two MNT supervisors stated that on June 13, 1988 at approximately 1900, they both closed door PD-8 (one person on one side of door PD-8 while the other person was on the opposite side of door PD-8), and that no ventilation ducting or hoses were running through the doorway at the time of or after the closing of door PD-8. A MNT General Supervisor also remembers door PD-8 being clear of obstructions when he last left the 2B DG room at approximately 1800 on June 13, 1988.

CMD personnel did not know that door PD-8 was a TS required fire door. CMD personnel also stated that the sign requesting persons entering the 2B DG room to check in with MNT personnel and sign a log was still posted on June 14, 1988, but they do not remember seeing the two TS fire door signs posted on the inside of the doors. The sign on the outside of door PD-8 was hidden from view because the door was opened back against a workbench on which were stacked numerous cardboard boxes, but the two signs on the inside were unobstructed and clearly visible.

Because of the conflicting testimony concerning the status of door PD-8 from 1900 on June 13, 1988 to approximately 0745 on June 14, 1988, it can only be definitely concluded that the door was blocked open without the required Fire Watch Tag posted or fire watch established from approximately 0745 on June 14, 1988 until 0129 on June 15, 1988. CMD, MNT, and Vendor personnel are known to have been in 2B DG room from 0745 on June 14, 1988 to approximately 1630 the same day; therefore, it is further concluded that Technical Specification 3.7.11 was violated from approximately 1630 on June 14, 1988 to 0129 on June 15, 1988; a period of approximately nine hours.

CMD personnel used procedure MP/0/A/7650/74, Service Level I Coating Procedure, to perform this job, which is the procedure used for safety related work inside containment. They should have used procedure MP/0/B/7700/09, Service Level II, III, and IV Coating Procedure, for this job. Both procedures contain several considerations and cautions including one special safety consideration to "Ensure adequate ventilation when painting". The preferred way to improve ventilation in the DG rooms is to open the door and draw in air from outside. Neither procedure contains a precaution or consideration regarding fire barriers or fire doors.

All CMD personnel involved with this event have received training on Station Directive 2.11.5, McGuire Nuclear Station Fire Penetrations and/or recent events involving breached fire barriers and fire doors, within the past nine months. In April and May of 1988, the Operations Superintendent held meetings with CMD North core crew painters to heighten their awareness of the importance of the consequences of TS violations or forced shutdowns required by TS noncompliance. Also, they have previously worked on jobs which required a fire watch. Even though some equipment problems delayed the start of sandblasting, CMD personnel felt no pressure to hurry to complete this job.

A review of past Licensee Event Reports (LERs) revealed several events in which fire barriers were breached without proper compensatory action. LERs 370/87-13, 369/87-22, 369/87-34, and Nonreportable Incident Reports M87-21-2, M87-24-1, M87-45-2, and M87-83-1 all included additional training and increased awareness of fire barriers as corrective actions. Nuclear Production, Quality Assurance, Transmission Department, and CMD employees have been recipients of this training; therefore, previous corrective actions should have prevented this event. This event is considered recurring.

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
McGUIRE NUCLEAR STATION, UNIT 2	0 5 0 0 0 3 7 0	8 8	— 0 0 5	— 0 0	0 6 OF 0 7

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

CORRECTIVE ACTIONS:

Immediate:

1) Security personnel reported the breach of fire door PD-8 to Operations personnel.

2) Operations personnel declared the door inoperable, verified the fire detectors within 2B DG room operable, posted a Fire Watch Tag on the door, and established an hourly fire watch patrol.

Subsequent:

1) CMD personnel assumed the fire watch from Operations personnel and properly maintained it through job completion.

2) MNT Supervision reviewed this incident with MNT personnel who failed to notice on June 14, 1988 that door PD-8 was blocked open without a fire watch in force.

Planned:

1) CMD North personnel will reiterate to CMD North paint crews the importance of adhering to Station Directive 2.11.5, including how to identify a fire door and actions that should be taken if a fire door is required to be blocked open for an extended period of time (greater than 1 hour).

2) CMD personnel will revise MP/0/B/7700/09, Service Level II, III, and IV Coating Procedure, by September 1, 1988, to include a precaution against opening fire doors for ventilation or to facilitate running equipment (ie, air hoses, ventilation ducting etc.) through a fire barrier or fire door to the job site without establishing a documented fire watch. The procedure will also reference TS 3.7.11 and Station Directive 2.11.5 to be consulted for guidance.

SAFETY ANALYSIS:

Although 2B DG was inoperable and the fire watch was not properly documented, CMD personnel remained in the area while fire door PD-8 was open on June 14, 1988 from approximately 0745 to approximately 1630 and would have reported a fire if it had occurred. Also, several fire protection systems were operable. In addition to the portable extinguishers, 100 pound CO^2 cart, and hose racks, the room is protected by an automatic Halon System [EIIS:DA]. When fire detectors in the 2B DG room actuate, they alarm on the Fire Detector Central Processor located in the Control Room. An alarm from the Central Processor then reflashes an annunciator on the Main Control Board. The fire detectors in 2B DG room were verified operable following the incident; therefore, it is concluded that they were operable during the nine hours the room was left unattended with door PD-8 blocked open. In the event of an alarm, the McGuire Fire Brigade could be dispatched to the area by Operations Control Room personnel within six minutes.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
McGUIRE NUCLEAR STATION, UNIT 2	0 5 0 0 0 3 7 0	8 8	— 0 0 5	— 0 0	0 7 OF 0 7

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

Although 2B DG was inoperable throughout this event, the 2A DG was operable and capable of supplying emergency power if needed.

There were no personnel injuries, radiation overexposures, or releases of radioactive material as a result of this event.

This event is considered to be of no significance with respect to the health and safety of the public.

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

August 8, 1988

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 370/88-05

Gentlemen:

Pursuant to 10CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 370/88-05 concerning a fire door that was blocked open without compensatory actions. This report is being submitted in accordance with 10CFR50.73(a)(2)(i)(B). This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

SEL/311/bhp

Attachment

xc: Dr. J. Nelson Grace
Regional 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

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

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

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

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

IE22
1/1