

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708130090 DOC. DATE: 87/08/05 NOTARIZED: NO  
 FACIL: 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.  
 AUTH. NAME AUTHOR AFFILIATION  
 NORTH, P. J. Duke Power Co.  
 TUCKER, H. B. Duke Power Co.  
 RECIP. NAME RECIPIENT AFFILIATION

DOCKET #  
 05000270

SUBJECT: LER 87-005-00: on 870323, two 5-inch holes cut into fire wall  
 dividing turbine bldg from auxiliary bldg. On 870706, breach  
 of fire barrier per Tech Spec 3.17.6 recognized. Caused by  
 mgt deficiency. Supervisors counseled. W/870805 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 7  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: AEOD/Ornstein: 1cy.

05000270

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	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
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	DEDRO	1 1	NRR/DEST/ADE	1 0
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
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	NRR/DREP/RAB	1 1	NRR/DREP/RPB	2 2
	NRR/PMAS/ILRB	1 1	REG FILE 02	1 1
	RES DEPY GI	1 1	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1

NOTES: 1 1

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
Oconee Nuclear Station - Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 2 7 10

PAGE (3)

1 OF 05

TITLE (4)  
FIRE WALL BREACHED CAUSING VIOLATION OF TECHNICAL SPECIFICATION

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	7	0	6	8	7	8	7	—	0	0	5	—	0	0	0	0	0	0
0	7	0	6	8	7	8	7	—	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)																	
POWER LEVEL (10)	0	8	7	20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)			
				20.405(a)(1)(i)				50.38(e)(1)				50.73(a)(2)(v)				73.71(c)			
				20.405(a)(1)(ii)				50.38(e)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 365A)			
				20.405(a)(1)(iii)				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	TELEPHONE NUMBER
PHILIP J. NORTH, LICENSING	AREA CODE 7 0 1 4 3 1 7 1 3 1 7 1 4 1 5 1 6

## 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
E									

## SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/>	<input checked="" type="checkbox"/>				

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

On March 23, 1987 with Unit 2 at 95% full power, two five inch holes were cut into the fire wall which divides the Turbine Building from the Auxiliary Building. After the holes were cut, the job was discontinued on April 20th. On July 6, 1987 the breach of the fire barrier was recognized by a supervisor who was to complete the job. During the time the fire barrier was breached no fire watch was posted and the barrier was not repaired within 7 days, either of which is a violation of Technical Specification 3.17.6.

The root cause of this occurrence was determined to be a management deficiency. The job supervisor did not adequately review the Nuclear Station Modification (NSM) package to recognize the NSM as a breach in a fire barrier and subsequently did not initiate actions to ensure compliance with Technical Specification requirements.

The immediate corrective action was to establish an hourly fire watch until the fire barrier could be repaired.

The possibility of a fire occurring, spreading, and going undetected is very low. The health and safety of the public was not affected by this incident.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED ONE AND TWO YEARS  
EXPIRES 3/31/88

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 368A's) (17)

Background:

The functional integrity of the fire barrier ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the station. Fire barriers help minimize the possibility of a single fire rapidly involving several safety related areas of the station prior to detection and extinguishment. The fire barrier between the turbine and auxiliary buildings is passive and subject to special consideration when it is inoperable.

During the period of time when the fire barrier is not operable, a fire watch patrol is required by Technical Specification 3.17.6 to inspect the area at least once per hour.

Nuclear Station Modification (NSM) 1805 was issued to Construction and Maintenance (CMD). CMD Projects Engineering originated the work request and procedure to install the modification. NSM 1805 was initiated to provide HVAC service to local areas in the Auxiliary Building. This required two 5" holes to be cut into the wall between the Turbine Building and the Auxiliary Building.

Description of Occurrence:

On December 10, 1986 CMD Crew 'A' received the packet for the installation of NSM 1805. CMD Supervisor 'A' was absent the week NSM 1805 came to the field. His crew leader, CMD technician 'A' reviewed NSM 1805 and signed off several steps in the 'Prerequisites' section and Step 7.2 in the 'System or Component Status' section. Upon returning to the job, CMD Supervisor 'A' did not review NSM 1805.

On December 17, 1986 CMD Crew 'A' was pulled off of NSM 1805 to support Unit 3's refueling outage. Since this crew had the lead on NSM 1805, no work was done on NSM 1805 until March 10, 1987.

The technicians on Crew 'A' were not qualified by the Employee Training and Qualification System (ETQS) to cut the holes required for the chilled water lines. CMD Supervisor 'A' requested, from other CMD supervisors, support on cutting the holes. On March 23, 1987 CMD Supervisor 'B' loaned two CMD technicians to CMD Supervisor 'A'. These technicians were to cut the holes in the wall under the supervision of CMD Supervisor 'A'. Both loaned technicians were ETQS qualified for cutting holes. However, they were not informed the wall was a fire barrier, therefore they did not initiate a fire watch when the holes were cut. CMD Supervisor 'A' did not know at that time the wall was a fire barrier.

The work on NSM 1805 continued until April 20, 1987. On June 3, 1987 after the Unit 3 outage, CMD crew 'A' restarted work on NSM 1805. Work continued on installing piping, hangers, wiring and the HVAC units.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

The holes remained open without a fire watch until on July 6, 1987 CMD Supervisor 'C' was requested to assist with the grouting of the sleeves for the chilled water lines. Upon seeing the holes cut in the wall, he questioned whether or not the wall was a fire barrier. He consulted an Associate Engineer who verified the wall was a fire barrier. A continuous fire watch was then established. The next day the penetrations were foamed, the fire barrier was declared operable, and the continuous fire watch was terminated.

Cause of Occurrence:

The root cause of this incident was determined to be a management deficiency because the job supervisor did not adequately review the NSM package to recognize the NSM as a breach in a fire barrier and subsequently did not initiate actions to ensure compliance with Technical Specification requirements. The following events are considered to be contributing causes.

The 'complete by (date)' section on Work Request 98703B was left blank. Station Directives state that the originator of the work request shall enter the completion date to establish a time frame in which the work must be completed. This omission could have contributed to the prolonged period of the fire barrier breach.

Work request 98703B stated the job was QA because it breached a fire barrier, however the safety evaluation in the procedure for the modification stated the job was non-QA. Both of these statements were determined by CMD Technician 'D' who is not a qualified reviewer. His evaluation was approved by appropriate management in CMD. In addition, the modification procedure should have referenced use of the procedure for cutting the holes in the fire barrier.

Once NSM 1805 was sent to the field, Technician 'A' performed the initial review because CMD Supervisor 'A' was absent. Upon returning to work, he did not review the work request or the modification procedure. Either one of these documents would have alerted him to the fact that the wall was a fire barrier. CMD Technician 'A' reviewed NSM 1805 and also signed off most of the procedure. He signed off two steps in the procedure that stated the wall, which the chilled water lines passed through, was a fire barrier. He later signed off a step indicating the holes were cut. CMD Technician 'A' is familiar with the fire protection program, however due to personnel error, he made no effort to incorporate a fire watch or take corrective actions.

Another deficiency discovered during this investigation was the lack of reverification of the procedure after extended breaks in the job. Twice the job was stopped for an extended length. After both of these breaks, NSM 1805 was not reviewed. No effort was made to ensure the prerequisites of the procedure were still being observed. Also during the extended breaks no turnover was made to ensure the NSM stayed intact and control was maintained over it. During both outages NSM 1805 package stayed in the crew box of CMD Crew 'A'.

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

A review of past incidents found three events in which fire barriers were breached. Based on this review, this event is considered recurring.

Corrective Actions:

The immediate corrective action was to establish an hourly fire watch.

Supplemental corrective actions were to:

- o Repair the fire wall and declare it fully functional on June 7, 1987 at 1600 hours.
- o Counsel CMD Supervisor 'A' and CMD technician 'A' regarding this incident. Proper review and control of documentation were emphasized.

Planned corrective actions are to:

- o Have all CMD personnel who write and review NSMs review Station Directives with regards to the proper way to fill out a work request.
- o Train CMD Projects on how to fill out safety evaluations for modifications.
- o Train CMD Projects on what to include when writing a procedure.
- o Train CMD field crews on how to properly control and review work request and procedures.
- o Train CMD field crews on CMD's new program regarding fire barriers.
- o Have CMD Projects and CMD craft supervisors evaluate the proper method for control of a NSM package.
- o ETQS-Qualify CMD Supervisor 'C' and his crew on fire barrier repairs. This qualification will be to both electrical and mechanical penetrations.

Analysis of Occurrence:

No equipment or systems were adversely affected by this incident. The possibility of a fire occurring in the area of the two penetrations is remote. The use of high heat, such as welding or burning on a job in this area, is restricted and requires a burning permit and fire watch.

Even though the fire barrier was breached for 105 days, the possibility of a fire spreading and going undetected is very low. The Turbine Building side of the fire wall is a high traffic area. The penetrations on the Auxiliary Building side of the fire barrier pass through a stairwell. Since both of these areas are frequently traveled by plant personnel, any fire that developed in this area would have been highly visible. Furthermore, the stairwell is an area

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

of low combustible material. An hourly fire watch tour was established when the fire barrier was identified as inoperable. There are also fire detection and fire suppression systems in the Turbine Building.

The possibility of a fire spreading was very low. The health and safety of the public were not affected by this incident.

**DUKE POWER COMPANY**

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HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

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August 5, 1987

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

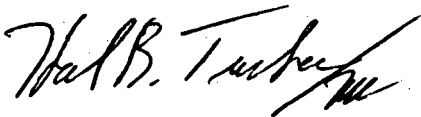
Subject: Oconee Nuclear Station  
Docket No. 50-269, -270, -289  
LER 270/87-05

Gentlemen:

Pursuant to 10CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report (LER) 270/87-05 concerning a Technical Specification violation due to a breached fire barrier.

This report is submitted in accordance with §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,



Hal B. Tucker

PJN/213/jgc

Attachment

IE22  
1/1

Document Control Desk  
August 5, 1987  
Page 2

xc: Dr. J. Nelson Grace, Regional Administrator  
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