

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9107190072 DOC.DATE: 91/07/10 NOTARIZED: NO DOCKET #  
 FACIL:50-269 Oconee Nuclear Station, Unit 1, Duke Power Co. 05000269  
 AUTH.NAME AUTHOR AFFILIATION  
 LOWERY,H.R. Duke Power Co.  
 BARRON,H.B. Duke Power Co.  
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-008-00:on 910612,TS violation occurred re breach of  
 fire barriers.Caused by inappropriate actions.Personnel  
 counseled & trained re importance of fire protection sys.  
 W/910710 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 8  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

### NOTES:

	RECIPIENT		COPIES			RECIPIENT		COPIES	
	ID CODE/NAME		LTTR	ENCL		ID CODE/NAME		LTTR	ENCL
	PD2-3 LA		1	1		PD2-3 PD		1	1
	WIENS, L		1	1					
INTERNAL:	ACNW		2	2		ACRS		2	2
	AEOD/DOA		1	1		AEOD/DSP/TPAB		1	1
	AEOD/ROAB/DSP		2	2		NRR/DET/ECMB 9H		1	1
	NRR/DET/EMEB 7E		1	1		NRR/DLPQ/LHFB10		1	1
	NRR/DLPQ/LPEB10		1	1		NRR/DOEA/OEAB		1	1
	NRR/DREP/PRPB11		2	2		NRR/DST/SELB 8D		1	1
	NRR/DST/SICB8H3		1	1		NRR/DST/SPLB8D1		1	1
	NRR/DST/SRXB 8E		1	1		REG FILE 02		1	1
	RES/DSIR/EIB		1	1		RGN2 FILE 01		1	1
EXTERNAL:	EG&G BRYCE, J.H		3	3		L ST LOBBY WARD		1	1
	NRC PDR		1	1		NSIC MURPHY, G.A		1	1
	NSIC POORE, W.		1	1		NUDOCS FULL TXT		1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION  
 LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 33 ENCL 33

40-4

Duke Power Company  
Oconee Nuclear Station  
P.O. Box 1439  
Seneca, SC 29679

(803)885-3000



**DUKE POWER**

July 10, 1991

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

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287  
LER 269/91-08

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report (LER) 269/91-08 concerning a breach of fire barriers.

This report is being submitted in accordance with 10 CFR 50.73 (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,

*H. B. Barron*  
H. B. Barron  
Station Manager

RSM/ftt

Attachment

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

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

Mr. L. A. Wiens  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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

NRC Resident Inspector  
Oconee Nuclear Station

9107190072 910710  
FDR . ADOCK 05000269  
S FDR

IE22

11

EXPIRES: 4/30/92

## 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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Oconee Nuclear Station, Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 2 6 9

PAGE (3)

1 OF 0 7

TITLE (4)

Inappropriate Actions Cause Breach of Fire Barriers Resulting In Technical Specification Violations

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	2	9	1	9	1	0	0	8	0	0	0	7	1	0	9	1	Oconee, Unit 2	0 5 0 0 0 2 7 0
0	6	1	2	9	1	9	1	0	0	8	0	0	0	7	1	0	9	1		0 5 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)

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) (b)

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

Henry R. Lowery, Chairman, Oconee Safety Review Group

AREA CODE

8 0 3 8 8 5 - 3 0 3 4

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 June 12, 1991 at approximately 1245 hours, Safety personnel, on a routine plant tour, discovered that a fire barrier had been breached without compensatory actions on Unit 1 from approximately 1730 hours on June 11, 1991 until approximately 0730 hours on June 12, 1991. A Nuclear Station Modification (NSM) was in progress in the immediate area. The craft personnel that had been pulling cables for the NSM had inadvertently left a fire door opened upon leaving the area on the previous day. When this discovery was made on Unit 1, the corresponding fire door on Unit 2 was also inspected and found to be opened and unattended. The craft personnel stated that this door had been closed after work had been completed in this area during the previous week. On June 15, 1991 at approximately 0800 hours, while performing daily rounds, Operations personnel discovered the fire door separating the East and West Penetration Rooms opened and unattended. Upon each discovery of a breached fire barrier, the door was closed and secured or compensatory measures were taken. Both Unit 1 and 2 were operating at 100% Full Power during these events. The root cause of these events is Inappropriate Actions, failure to adhere to policies, directives, or procedures. Corrective actions for these events include personnel counseling and training to all site personnel emphasizing the importance of fire protection systems.

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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Oconee Nuclear Station, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 2 6 9	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 1	— 0 0 8	— 0 0	0 2	OF	0 7

TEXT (If more space is required, use additional NRC Form 388A's) (17)

BACKGROUND

A firewall [EIIS:KP] is a structure which is designed to impede the travel of smoke or flame. Firewalls are used to impede the spread of a fire to areas containing safety related equipment. Fire doors provide the same protection for the door openings while allowing passage from one area to another.

Two Penetration Rooms are located in the Auxiliary Building [EIIS:NF] adjacent to each Reactor Building [EIIS:NH]. The Penetration Rooms are the location of most fluid and electrical penetrations to and from the Reactor Building. Safety related equipment such as Engineered Safeguards System [EIIS:JE] and Emergency Feedwater System [EIIS:BA] valves are located in the Penetration Rooms. The Penetration Rooms are identified as East Penetration Room and West Penetration Room and are separated by a firewall with a fire door.

Oconee Technical Specification 3.17, "Fire Protection and Detection Systems", requires all fire barrier penetrations protecting safety related areas to be operable. If such a barrier is not operable, Technical Specifications further require that a determination of fire detection instrumentation for the affected area be made. If the instrumentation is operable, a fire watch, which consists of a physical inspection of an area or equipment to determine if a fire or threat of fire exists, shall be performed every hour.

EVENT DESCRIPTION

During the week of June 3, 1991, Construction and Maintenance Department (CMD) cable pullers completed preliminary work of pulling cables in the Cable Spreading Room (CSR) and through the cable shaft on Unit 2 for Nuclear Station Modification (NSM) ON-22820, which will replace obsolete Radiation Monitors.

During the week of June 10, 1991, CMD cable pullers were performing the same work for Unit 1 in the CSR and the Unit 1 cable shaft. The hourly fire watches had been performed appropriately while the Unit 1 cable shaft door (CS-1) was open to pull cables from one side of the fire barrier to the other.

On June 12, 1991 at approximately 1245 hours, a Fire Protection Specialist (FPS), on a routine plant tour, found the Unit 1 cable shaft door (CS-1) "tied" open. He immediately reported this to the Operations Unit Supervisor. The Operations Unit Supervisor knew that work was in progress and he verified that the fire detection instrumentation for the affected area was operable and that proper one hour fire watches were being performed. An hourly fire watch on this door had been established at 0730 hours, making this fire barrier operable at this time. However, when the CMD crew leader was questioned by the Operations Unit Supervisor about the

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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Oconee Nuclear Station, Unit 1	0 5 0 0 0 2 6 9	9 1	0 0 8	0 0	0 3	OF	0 7

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

door, he stated that the door had been left open at the end of the shift on the previous day, which was approximately 1730 hours on June 11, 1991. No compensatory actions had been taken between 1730 hours and 0730 hours. He stated that he understood that the door was a fire barrier and that he routinely checked the door at the end of each work day, but on the previous day he had failed to check it. All fire detection instrumentation had been operable during the time that the door had been left opened.

The Operations Unit Supervisor knew that similar work had been performed on Unit 2 the previous week for NSM ON-22820, so he asked the FPS to inspect that door. The FPS found the Unit 2 cable shaft door (CS-2) opened also. This door was immediately closed because a fire watch for this door was not being performed. When questioned by the Operations Shift Supervisor and the FPS, the CMD crew leader stated that he was positive that CS-2 had been closed when the work in this shaft was completed the previous week. Follow-up investigations could not determine when this door had been opened.

On the morning of June 14, 1991, the CMD Craft Manager held a meeting with the craft personnel who were on site that day and involved in cable pulling. He stressed the importance of following station administrative controls concerning fire barriers.

Also, on June 14, 1991, work continued in the Unit 1 East and West Penetration Rooms for NSM ON-12820.

On June 15, 1991 at approximately 0800 hours, while performing routine rounds, a Non-Licensed Operator (NLO A) discovered that the fire door separating the East and West Penetration Rooms was secured in the opened position by the use of Ty-wraps attached to scaffolding that had been erected near the door in the West Penetration Room. NLO A immediately closed the door. At approximately 1000 hours when he completed his rounds and some training assignments, he returned to the control room area and reported the opened fire door to the Operations Unit Supervisor.

CMD craft worker A was the last crew member to leave the area on June 14, 1991 at approximately 1500 hours. He stated that the door between the East and West Penetration Rooms was closed when he left the area.

This door is checked by Operations personnel once per shift and a sheet is completed verifying the status of the fire door. The check of the door took place at approximately 2000 hours on June 14, 1991, when the door was indicated to be closed by NLO B. Following this check, a Security Guard passed through this door to perform routine security duties at approximately 0030 hours and again at 0300 hours on June 15, 1991. Although this door is not specifically required to be checked by Security, the Security Guard stated that he believed the door was closed and that he would have noticed if the door was secured opened.

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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Oconee Nuclear Station, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 2 6 9 9 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0 0 8	0 0	0 4	OF	0 7	

TEXT (If more space is required, use additional NRC Form 388A's) (17)

A follow-up investigation is being conducted in which each of the 161 persons whose Security Badge was logged as being on site between the hours of 1730 on June 14, 1991 and 1030 on June 15, 1991 is being questioned concerning their knowledge of the opened fire door between the East and West Penetration Rooms. 157 of these people have been questioned concerning their knowledge of the open fire door. This investigation has not revealed who secured the door opened. Four of the people could not be reached due to vacations or sickness, but will be questioned upon returning to work. These people did not have job assignments in that area and are not expected to change the results.

CONCLUSIONS

Annually, training is administered to each employee for access into the protected area. This training reiterates the administrative controls concerning fire barriers. Each of the three doors in these events are clearly labeled CONTROLLED FIRE DOOR KEEP CLOSED. It is concluded that the root cause of these events is multiple Inappropriate Actions, failure to adhere to policies, directives, or procedures.

The first inappropriate action was taken by the Construction and Maintenance Department (CMD) crew leader. The Unit 1 cable shaft door (CS-1) was found opened and appeared to be a breach of fire protection. Further investigation revealed that compensatory measures were being taken by performance of an hourly fire watch. Upon questioning, the CMD crew leader stated that he had failed to check the door at the end of the previous shift and that the door had been left "tied" opened overnight with no compensatory actions taken. The CMD crew leader was counseled concerning this inappropriate action.

Another inappropriate action occurred when the fire watches were re-established at 0730 hours on June 12, 1991. The first member of the work crew to reach the area should have noticed that the door was already opened and therefore a fire barrier breach had occurred, but this was not identified or reported to the Shift Supervisor or Safety at this time.

The Unit 2 cable shaft door (CS-2) was also found opened. The work that was being performed through this door had been completed the previous week. The crew leader stated that the door was closed after the work was completed. The root cause of this event is also assigned inappropriate action, failure to adhere to policies, directives, or procedures. However, the person who left the door opened has not been identified.

The fire door between the East and West Penetration Rooms, found opened on June 15, 1991, was verified to have been closed on the previous day after the CMD crew had pulled cable and left for the day. Three individuals verified that the door was closed between the hours of 1500 on June 14, 1991 and 0300 on June 15, 1991. The door was opened between the hours of 0300 and 0800 hours on June 15, 1991. The root cause of this event is also

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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Oconee Nuclear Station, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 2 6 9 9 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		—	0 0 8	—	0 0	0 5	OF 0 7

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

assigned inappropriate action, although it is unknown who performed the action. Management is questioning each individual whose security badge was logged as being on site during this time period. Thus far, this investigation has not revealed who opened the door and Ty-wrapped it to the scaffolding.

These events are considered to be recurring due to the number of fire doors found opened and due to the following reports:

Problem Investigation Report 4-090-0027 "Inappropriate Action Results in Failure to Post Fire Watch While Fire Protection Pump Room Fire Doors Were Impaired". In that event, an insulation crew blocked open fire boundary doors to the High Pressure Service Water System [EIIS:KF] pump house without taking the required compensatory actions. The root cause of that event was Inappropriate Action in which the need to establish a fire watch was not recognized. Corrective actions included discussions with the supervisor and crew involved and Mechanical Maintenance employees concerning the administrative controls for fire barriers and the importance of reading and obeying signs.

Licensee Event Report LER 287/91-04 "Inappropriate Action, Failure to Follow Procedure, During Nuclear Station Modification Implementation Results in a Degraded Fire Barrier". That event involved a breach that was made through a firewall, in which a penetration was not sealed nor were the required compensatory actions taken. In that event, the temporary supervisor assumed that the wall was not a fire barrier and the inappropriate action was due to failure to follow procedure. One of the corrective actions for that event was that a training package would be issued to station CMD personnel involved in NSM work which emphasizes the importance of administrative controls of fire protection systems. That corrective action is in the process of being completed.

These corrective actions have not been effective in preventing these events. Each of the fire doors that were found opened are clearly posted as controlled fire doors and that they are to be kept closed. The personnel who had access to the doors should have been cognizant of the administrative controls for fire barriers due to the posted signs and the annual training which includes fire barriers.

This event is not NPRDS reportable. There was no release of radioactive material or exposure to radiation involved. This event did not involve any personnel injuries.

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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Oconee Nuclear Station, Unit 1	DOCKET NUMBER (2)  05000269	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		91	008	00	06	OF	07

TEXT (If more space is required, use additional NRC Form 388A's) (17)

CORRECTIVE ACTIONS

## Immediate

1. Upon discovery of the breached fire barriers, the fire doors were either immediately closed or compensatory measures were taken per Technical Specifications.

## Subsequent

1. Safety personnel and Operations Shift Supervisor were notified of the fire barrier degradation.
2. The Construction and Maintenance Department (CMD) crew leader responsible for the cable shaft door (CS-1) that had been inadvertently left opened was counseled concerning his inappropriate action.
3. The CMD craft personnel involved in cable pulling who had been performing work in the cable spreading areas were counseled as a group concerning the importance of fire barriers.

## Planned

1. A training film emphasizing the importance of fire protection systems will be shown to all site personnel.
2. This LER will be reviewed with each work team in the CMD Southern Division craft group.
3. The personnel whose badges were logged on site and could not be contacted for questioning concerning the fire door between the East and West Penetration Rooms will be questioned upon their return to work.

SAFETY ANALYSIS

Each Cable Spreading Room contains redundant safety related cables required for the safe shutdown of one unit. Some safety related equipment for the respective unit is also located in each of these areas. The cable shaft doors that were found opened in this event are necessary to provide separation between the Cable Spreading Rooms and the cable shaft. The consequences of a fire in the Cable Spreading Room could render components/systems inoperable. The spreading of the fire through the shaft would serve to damage more of the cable of the already inoperable components/systems. However, the Safe Shutdown Facility provides for the redundant operation of necessary equipment to bring the unit to hot shutdown. A fire in the Cable Spreading Room or the cable shaft would not impair the safe shutdown of the unit.



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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Oconee Nuclear Station, Unit 1

0 5 0 0 0 2 6 9 9 1 - 0 0 8 - 0 0 0 7 OF 0 7

TEXT (If more space is required, use additional NRC Form 386A's) (17)

The East and West Penetration Rooms house portions of redundant systems that are necessary to bring the unit to a safe shutdown. The purpose of the wall between the East and West Penetration rooms is to prevent a fire from spreading from one room to the other, destroying the redundant systems that are housed in each room. During this event, the fire door separating these two rooms was open for up to 5 hours.

If a fire occurred, the opened door between the East and West Penetration Room would increase the possibility that both trains of redundant systems would be affected. The assumed worst case is that the unit could not be successfully brought to safe shutdown conditions, due to inoperability of redundant safe shutdown systems. However, the probability of a fire propagating through the opened door to the other penetration room is reduced due to the following:

Each penetration room contains fire detection devices which would provide early warning of any fire, thereby allowing for the initiation of fire fighting activities. There was no degradation of fire detection devices during the period of inoperability.

Operations and Security personnel each access the Penetration Rooms a minimum of twice per day during their daily rounds, providing an opportunity for early fire detection and mitigation.

Safety Related Systems are isolated from combustible material within the East and West Penetration Rooms to the extent practical. The only combustible of any significance in the penetration areas is the cable jacketing.

In response to 10 CFR 50 Appendix R, station procedures have been developed to assure that systems necessary to achieve and maintain cold shutdown can be repaired within 72 hours following a design basis fire. The equipment necessary to complete damage control measures is maintained on site.

The fire door was found secured opened into the West Penetration Room by the use of plastic Ty-wraps attaching the door knob to metal scaffolding. Since the door has an automatic closure device, it is possible that if a fire started in the West Penetration Room, the plastic Ty-wrap could be melted by the heat absorbed by the metal door knob and metal scaffolding and therefore permit the closing of the door before the fire had spread through the door opening.

There were no fires that challenged the Fire Protection System during these periods of fire barrier degradation, therefore, the health and safety of the public were not compromised as a result of these events.