Virginia Electric and Power Company
Surry Power Station
P. O. Box 315
Surry, Virginia 23883

August 22, 1991

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

Serial No.: 91-497
Docket No.: 50-280
License No.: DPR-32

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Unit 1.

REPORT NUMBER

91-013-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by the Corporate Management Safety Review Committee.

Very truly yours,

M. R. Kansler
Station Manager

Enclosure

cc: Regional Administrator
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30323

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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Surry Power Station, Unit 1	0 5 0 0 0 2 8 0	1 OF 0 4

TITLE (4) MCC Room Fire Suppression System Inoperable Due To Personnel Error In Administratively Controlling The MCC Room Exit Door

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	2 3	9 1	9 1	- 0 1 3	- 0 0	0 8	2 2	9 1		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 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
M. R. Kansler, Station Manager	AREA CODE 8 0 4 3 5 7 - 3 1 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	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 July 23, 1991, at approximately 1030 hours, with Unit 1 at 100% power and Unit 2 at 100% power, the Unit 1 Cable Vault upper level Motor Control Center (MCC) room exit door was found blocked open. This condition, which limited the ability of the carbon dioxide fire suppression system to perform its intended function, had existed for a period in excess of that allowed by Technical Specifications (TS) 3.21.B.4. On July 23, 1991, at approximately 1430 hours, a continuous firewatch was posted at the Unit 1 MCC room and at approximately 1630 hours, a door blocking device, designed to release upon actuation of the fire protection system, was installed and tested. The cause of this event is attributed to a cognitive error on the part of utility personnel in administratively controlling the MCC room exit door. To prevent recurrence, signs have been installed on both sides of the Unit 1 and Unit 2 MCC room exit doors cautioning that the door is a carbon dioxide fire protection system boundary. In addition, station doors will be evaluated and labeled or color coded, as appropriate, to indicate their safety significance to station operation. The event is being reported, pursuant to 10CFR 50.73(a)(2)(i)(B), since this condition is prohibited by TS 3.21.B.4.

1.0 DESCRIPTION OF THE EVENT

On July 23, 1991, at approximately 1030 hours, with Unit 1 at 100% power and Unit 2 at 100% power, the Unit 1 Cable Vault upper level Motor Control Center (MCC) room exit door {EIIS-DR} was found blocked open. It was determined that this condition, which limited the ability of the carbon dioxide fire suppression system {EIIS-KQ} to perform its intended function, had existed for a period in excess of that allowed by Technical Specifications (TS). TS 3.21.B.4 requires that a continuous fire watch be established within one hour when the system is inoperable. A second occurrence of this event was observed on July 29, 1991.

This event was discovered by utility personnel during a review of the compensatory actions for Justification For Continued Operation (JCO) 1-91-3. This JCO is associated with the Unit 1 pressurizer heater breakers {EIIS-BKR} and, in part, requires that the Unit 1 MCC room ambient temperature be maintained as close as possible to 40 degrees Centigrade or lower. Direction is provided for lowering the temperature of the room by installing portable fans and opening and administratively controlling the MCC room exit door.

The JCO temperature control compensatory actions were initially implemented by assigning a continuous firewatch to monitor the temperature of the MCC room and report high temperatures to the Control Room. It was subsequently determined that a continuous fire watch was not required since the MCC room exit door is not a fire door (not fire rated). As a result, the monitoring was revised to have a firewatch qualified individual check the ambient temperature of the room every two hours.

This event occurred when the MCC room exit door was mechanically blocked open, as a temperature control measure, and a continuous fire watch was not assigned. Upon discovery that the door was blocked open, the MCC room carbon dioxide fire suppression system was considered inoperable since the exit door functions as a suppression system boundary.

The event is being reported, pursuant to 10CFR 50.73(a)(2)(i)(B), since this condition is prohibited by TS 3.21.B.4.

2.0 SAFETY CONSEQUENCES AND IMPLICATIONS

The Unit 1 Cable Vault upper level MCC room is located above the Unit 1 outside Containment Electrical Penetration Vault. The two areas are connected by a circular stairway and the floor is penetrated by open ventilation ducts. The areas have a smoke detection system {EIIS-IC}, which alarms in the control room, and an automatic heat-actuated total flooding carbon dioxide fire suppression system.

The MCC room contains nonsafety-related 480 volt MCCs {EIIS-MCC}, the heating and ventilation equipment for the MCC room and Containment Electrical Penetration Vault below, and a small amount of combustible material (cable insulation).

The Containment Electrical Penetration Vault contains safety related cables {EIIS-CBL} including control and power cables for safe shutdown equipment.

An engineering evaluation determined that the consequences of a fire in the Unit 1 MCC room would be minor. This conclusion was based on the limited quantity of combustibles in the room and that the smoke detection system would generate a fire brigade response. It was also determined that the open MCC room door would not impair the Containment Electrical Penetration Vault fire suppression system of performing its function since carbon dioxide, being heavier than air, would not be drawn upward to the MCC room. In addition, the MCC room was inspected by a firewatch every two hours. Therefore, the health and safety of the public were not affected.

3.0 CAUSE

The cause of this event is attributed to a cognitive error on the part of utility personnel in administratively controlling the MCC room exit door. It was not recognized that a continuous fire watch is required when the door is open and the automatic door blocking device (designed to allow the door to close upon actuation of the fire protection system) is not in place. This error was fostered by the fact that the door is not fire rated. Fire rated doors are painted red and recognized by station personnel as a fire boundary that should not be blocked open without a continuous fire watch assigned. The subject door is painted green and is not labeled to indicate its significance to fire suppression.

A contributing factor to this event was that the JCO did not provide explicit instructions as to why and how the subject door was to be administratively controlled. The preparation of the JCO required a safety evaluation be performed in accordance with 10 CFR 50.59. The safety evaluation contains a series of questions designed to determine if the proposed activity is safe or constitutes an unreviewed safety question. If the response to the safety evaluation question pertaining to fire protection systems had provided additional detail, more explicit direction may have been provided in the JCO.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

On July 23, 1991, at approximately 1430 hours, a continuous firewatch was posted at the Unit 1 MCC room with specific instructions to close the exit door in the event of a fire protection system actuation or of indications of a possible fire.

5.0 ADDITIONAL CORRECTIVE ACTION(S)

On July 23, 1991, at approximately 1630 hours, a door blocking device, designed to release upon actuation of the fire protection system, was installed and tested, as required.

6.0 ACTIONS TO PREVENT RECURRENCE

A memorandum emphasizing the proper means of administratively controlling the MCC room door was issued to personnel responsible for monitoring the temperature of the MCC room. Signs were also installed on both sides of the Unit 1 and Unit 2 MCC room exit doors cautioning that the door is a carbon dioxide fire protection system boundary.

Station doors will be evaluated and labeled or color coded, as appropriate, to indicate their safety significance to station operation.

Additional training will be conducted for appropriate personnel to clarify JCO documentation requirements and to emphasize the need to provide specific instructions in JCOs as to why and how plant systems and components are to be administratively controlled.

7.0 SIMILAR EVENTS

88-014-00 Failure To Comply With Technical Specification Due To Administrative Oversight

89-011-00 TS Required Fire Watch Patrol Not Maintained While Containment Smoke Detectors Were Inoperable

8.0 MANUFACTURER/MODEL NUMBER

N/A