

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

April 23, 1991

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

Serial No.: 91-239
Docket No.: 50-280
License No.: DPR-32

Gentlemen:

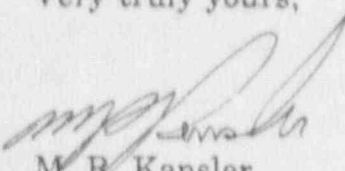
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Unit 1.

REPORT NUMBER

91-002-00

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. B. Kansler
Station Manager

Enclosure

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

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Surry Power Station, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 8 0				PAGE (3) 1 OF 0 4	
TITLE (4) Two Charging Pumps and One Charging Pump Service Water Pump Inoperable Simultaneously Due to Instrument Air Line Failure Caused by 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 3	2 6	9 1	1 9	1 0 0 2	0 0	0 4	2 3	9 1					0 5 0 0 0		
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)													
N		20.402(b)				20.406(c)				50.73(a)(2)(iv)				73.71(b)	
POWER LEVEL (10)		1 0 0				20.406(a)(1)(i)				50.73(a)(2)(iv)				73.71(c)	
		20.406(a)(1)(ii)				50.73(a)(2)(ii)				50.73(a)(2)(v)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
		20.406(a)(1)(iii)				50.73(a)(2)(iii)				50.73(a)(2)(vi)(A)					
		20.406(a)(1)(iv)				50.73(a)(2)(iv)				50.73(a)(2)(vi)(B)					
		20.406(a)(1)(v)				50.73(a)(2)(v)				50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)															
NAME M. R. Kansler, Station Manager										TELEPHONE NUMBER 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	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC					
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 March 26, 1991, with Unit 1 operating at 100% power, Charging Pump 1-CH-P-1B was declared inoperable due to a failed instrument air line to its lube oil temperature control valve, 1-SW-TCV-108B. This resulted in two of three charging pumps being considered inoperable, since the "A" and "C" Pumps were both aligned to the same emergency bus. At the time the "B" Charging Pump was declared inoperable, Charging Pump Service Water Pump 1-SW-P-10A was out of service for maintenance. With two charging pumps and one charging pump service water pump inoperable simultaneously, a condition not allowed by Technical Specifications existed and a six hour action statement was entered in accordance with Technical Specification 3.0.1. The failed instrument air line was isolated. The "C" Charging Pump was transferred to the redundant bus at 1443 hours and the six hour action statement was exited. The "B" Charging Pump could have been operated if safety injection had been required and there were no actual or potential consequences to public health and safety. The event was caused by personnel error. A contractor-employed painting foreman inadvertently made contact with and caused failure of the instrument air line during painting of the charging pump cubicle. The event is being communicated to station and construction craft personnel. This report is required by 10 CFR 50.73(a)(2)(i)(B) because the unit was operated in a condition not allowed by the Technical Specifications.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-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)

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Surry Power Station, Unit 1

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TEXT (If more space is required, use additional NRC Form 306A's) (17)

1.0 DESCRIPTION OF THE EVENT

On March 26, 1991, Unit 1 was operating at 100% power with Charging Pump 1-CH-P-1A [EHS-BQ,P] in operation. At 1415 hours, Charging Pump 1-CH-P-1B was declared inoperable because of a broken instrument air supply line [EHS-LD,TBG] to its lube oil temperature control valve, 1-SW-TCV-108B [EHS-BI,TCV]. The remaining Unit 1 Charging Pumps, 1-CH-P-1A and 1-CH-P-1C, were aligned to 4160V Emergency Bus 1H [EHS-EB,BU], in accordance with normal operating practice. With the "A" and "C" Charging Pumps aligned to the same bus, loss of the "B" Pump resulted in only one charging pump being considered operable. At the time the "B" Charging Pump was declared inoperable, Charging Pump Service Water Pump 1-SW-P-10A [EHS-BI,P] was out of service for maintenance and a 24 hour action statement was in effect.

Technical Specification 3.3.A requires that two charging pumps (out of three) and two charging pump service water pumps (out of two) be operable when the reactor is critical. Specification 3.3.B provides actions to be taken when two charging pumps are inoperable or one charging pump service water pump is inoperable, but it does not permit two charging pumps and one charging pump service water pump to be inoperable simultaneously. Since a condition not allowed by Technical Specifications was in existence, a six hour action statement was entered in accordance with Specification 3.0.1.

The broken instrument air line was isolated. Charging Pump 1-CH-P-1C was transferred from the 1H Bus to the 1J Bus and the six hour action statement exited at 1443 hours.

This report is required by 10 CFR 50.73(a)(2)(i)(B) because the unit was operated in a condition not allowed by the Technical Specifications.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

The charging pumps provide makeup and seal water injection flow to the Reactor Coolant System [EHS-AB] during normal operation and also serve as high-head safety injection pumps in a design basis accident. Three charging pumps are provided, each of which can provide 100% of normal charging or design high head safety injection flow. Two 100% capacity charging pump service water pumps provide cooling water flow to the charging pump lube oil coolers [EHS-BQ,CLR] and charging pump intermediate seal coolers [EHS-BQ,CLR].

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Failure of the instrument air supply line to valve 1-SW-TCV-108B caused the valve to fully open, admitting maximum service water flow to the Charging Pump 1-CH-P-1B lube oil cooler. This does not impair the capability of the pump to perform its accident mitigating function; however, it was required that the pump be declared inoperable since a support system was inoperable.

Since the "A" and "C" Charging Pumps were aligned to the 1H Bus, only one of them could be considered operable for the purpose of satisfying Technical Specification requirements. With two charging pumps and one charging pump service water pump inoperable simultaneously, adequate high head safety injection flow would still have been available in an accident situation; however, loss of power to the 1H Bus would have resulted in high head safety injection flow being unavailable. In this event, Charging Pump 1-CH-P-1B could have been operated since it is powered by the 1J Bus and increased cooling water flow to its lube oil cooler would not have degraded its accident mitigating capability. It is concluded that no actual or potential consequences to public health and safety were created by the event.

3.0 CAUSE OF THE EVENT

The event was caused by personnel error. A contractor-employed painting foreman was descending a permanently installed ladder in the "B" Charging Pump Cubicle during painting of the cubicle. While stepping from the permanent ladder to a step ladder, the foreman inadvertently put pressure on the instrument air supply line to valve 1-SW-TCV-108B with his foot, resulting in failure of the line at the connection to the valve controller. The instrument air line was located in close proximity to the permanent ladder, to the side of the ladder opposite the side where the step ladder was placed.

Procedures governing painting do not specifically caution against making contact with instrument lines; however, a pre-job brief and area walkdown had been conducted with Operations personnel in accordance with station administrative procedures. The locations of sensitive instrument lines were identified and reasonable precautions were taken, including the placement of the above-referenced step ladder in the cubicle so that instrument lines at a lower elevation would be avoided. The involved foreman was aware of the importance of avoiding unnecessary contact with instrument lines through the pre-job brief and through prior experience; however, an isolated error was made in this instance.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3160-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

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

4.0 IMMEDIATE CORRECTIVE ACTION(S)

The painting foreman promptly notified a Control Room Operator of the failed instrument air line. The Auxiliary Building Operator isolated the failed line. Charging Pump 1-CH-P-1B was declared inoperable at 1415 hours and a six hour action statement entered in accordance with Technical Specification 3.0.1. Charging Pump 1-CH-P-1C was transferred from 4160V Emergency Bus 1H to Bus 1J at 1443 hours and the six hour action statement exited.

5.0 ADDITIONAL CORRECTIVE ACTION(S)

Charging Pump Service Water Pump 1-SW-P-10A was returned to service at 1635 hours on March 26, 1991. Instrument and Control Technicians repaired the failed instrument air line to valve 1-SW-TCV-108B. Charging Pump 1-CH-P-1B was returned to service at 1053 hours on March 27, 1991.

6.0 ACTIONS TO PREVENT RECURRENCE

This event is being discussed in safety meetings with painters and other construction craft personnel to emphasize the importance of avoiding unnecessary contact with instrument lines. Station personnel will be notified of this event by means of a Human Performance Enhancement System (HPES) "Problem Alert" memorandum.

7.0 SIMILAR EVENTS

None.

8.0 ADDITIONAL INFORMATION

None.