

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

March 23, 1994

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

Serial No.: 94-189  
SPS:BCB  
Docket No.: 50-280  
License No.: DPR-32

Dear Sirs:

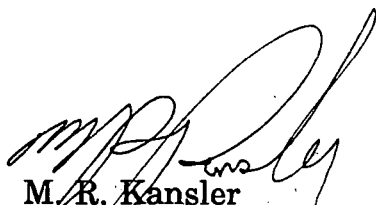
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to Surry Power Station Unit 1.

**REPORT NUMBER**

50-280/94-004-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to the Management Safety Review Committee for its review.

Very truly yours,



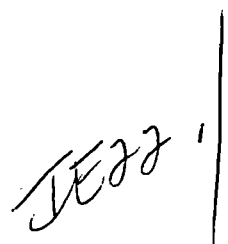
M. R. Kansler  
Station Manager

Enclosure

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

M. W. Branch  
NRC Senior Resident Inspector  
Surry Power Station

9403280370 940323  
PDR ADCK 05000280  
S PDR



# LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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) 05000 - 280	PAGE (3) 1 OF 4
--	--	----------------------------------	--------------------

TITLE (4) Loop Isolation Valve Not Open Within Tech. Spec. Limit Due to Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	01	94	94	004	00	03	23	94		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10) 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
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
	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 M. R. Kansler, Station Manager	TELEPHONE NUMBER (Include Area Code) (804) 357-3184
--	--

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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
--	------	-------------------------------	-------	-----	------

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 1, 1994, Unit 1 was at refueling shutdown in the 38th day of a scheduled refueling outage. The Reactor Coolant System (RCS) loops had been drained and isolated. The reactor core was partially loaded with 32 fuel assemblies. Operating Procedure 1-OP-RC-002 was initiated to fill RCS Loop "B" from the active RCS. At 0840 hours, the loop was determined to be full. At 1050 hours, the hot and cold leg isolation valves were fully opened. Technical Specification 3.17.5.c requires that the hot and cold leg isolation valves be fully opened within two hours after an isolated loop is filled. During this event, the hot leg isolation valve was not fully opened within the two hour time limit. This event was caused by a cognitive personnel error. To prevent recurrence, the Operations Department personnel involved were counseled. This event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

**REQUIRED NUMBER OF DIGITS/CHARACTERS  
FOR EACH BLOCK**

<b>BLOCK NUMBER</b>	<b>NUMBER OF DIGITS/CHARACTERS</b>	<b>TITLE</b>
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME  8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED.
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

**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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
Surry Power Station, Unit 1		05000 -280		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
				94	- 004	- 00	

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

**1.0 DESCRIPTION OF THE EVENT**

On March 1, 1994, Unit 1 was at refueling shutdown in the 38th day of a scheduled refueling outage. The Reactor Coolant System (RCS) [EIIIS-AB] loops had been drained and isolated. The reactor core [EIIIS-AB,RPV] was partially loaded with 32 fuel assemblies. The Residual Heat Removal system [EIIIS-BP] was operating.

At approximately 0651 hours, Operating Procedure 1-OP-RC-002, "Reactor Coolant System Fill," was initiated to fill RCS Loop "B". The shutdown margin had been calculated and the RCS make-up source boron concentration had been verified to be greater than that of the RCS. At 0710 hours, the Loop "B" cold leg isolation valve, 1-RC-MOV-1593, was opened slightly and the loop began filling from the RCS. At 0840 hours, the loop was determined to be full in accordance with 1-OP-RC-002. Procedure 1-OP-RC-002 required that the loop boron concentration be greater than or equal to the RCS boron concentration before the hot and cold leg isolation valves [EIIIS-AB,ISV] were opened. This condition was verified at 1030 hours. The Loop "B" cold leg isolation valve, 1-RC-MOV-1593, and the hot leg isolation valve, 1-RC-MOV-1592, were fully opened at 1039 hours and 1050 hours, respectively.

Technical Specification 3.17.5.c requires that the hot and cold leg isolation valves be fully opened within two hours after an isolated loop is filled. During this event, 1-RC-MOV-1592 was not opened within the two hour limit following the completion of RCS Loop "B" filling operations. Since this condition is prohibited by Technical Specification 3.17.5.c., this event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

**2.0 SAFETY CONSEQUENCES AND IMPLICATIONS**

This event resulted in no safety consequences or implications. The unit was at refueling shutdown and RCS Loop "B" was filled from the active portion of the RCS. The shutdown margin was not affected since the boron concentration of the loop was verified to be equal to that of the RCS before the loop isolation valves were opened. Therefore, the health and safety of the public were not affected.

**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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
Surry Power Station, Unit 1	05000 - 280	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
		94	- 004 -	00	

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

**3.0 CAUSE**

This event was caused by a cognitive personnel error on the part of licensed Senior Reactor Operators (SRO). The SROs were aware of the two hour time limit for opening the loop isolation valves, but did not properly manage the evolution to ensure that the time constraints were met.

**4.0 IMMEDIATE CORRECTIVE ACTION(S)**

No immediate corrective actions were necessary.

**5.0 ADDITIONAL CORRECTIVE ACTION(S)**

Procedures 1-OP-RC-002 and 2-OP-RC-002 are being revised to incorporate the lessons learned from this event.

**6.0 ACTIONS TO PREVENT RECURRENCE**

The personnel involved in this event were counseled on the need to allow sufficient time to respond to contingencies that may be encountered during time sensitive evolutions.

Station SROs were apprised of this event by Operations Department management.

A copy of this Licensee Event Report will be included in the required reading for licensed reactor operators. In addition, the Superintendent - Operations will present a synopsis of this event during licensed operator requalification training, with emphasis on the proper on-shift management techniques to ensure compliance with Technical Specification requirements.

**7.0 SIMILAR EVENTS**

None

<b>NRC FORM 366A</b> <small>(5-92)</small>	<b>U.S. NUCLEAR REGULATORY COMMISSION</b>	<b>APPROVED BY OMB NO. 3150-0104</b> <b>EXPIRES 5/31/95</b>
<b>LICENSEE EVENT REPORT (LER)</b> <b>TEXT CONTINUATION</b>		ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
Surry Power Station, Unit 1	05000 - 280	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	- 004 -	00	

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

**8.0 MANUFACTURER/MODEL NUMBER**

N/A

**9.0 ADDITIONAL INFORMATION**

Unit 2 was operating at 98% power and was not affected by this event.