

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

May 6, 1992

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

Serial No.: 92-311  
SPS:RCB  
Docket No.: 50-281  
License No.: DPR-37

Gentlemen:

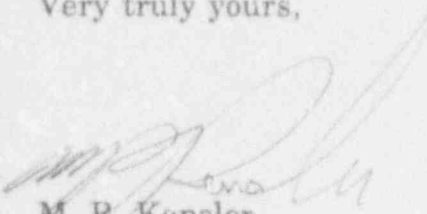
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Unit 2.

**REPORT NUMBER**

50-281/92-005-00

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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PDR ADDCK 05000231  
S PDR

*JEAD*

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 80.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-580), 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 2** DOCKET NUMBER (2): **050002811** PAGE (3): **1 OF 4**

TITLE (4): **One Train of Intake Canal Level Sensing Channel 1 Discovered Out of the Trip Position After Isolation of Screenwell**

EVENT DATE			LER NUMBER (5)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
04	10	92	92	005	00	05	06	92		050000

OPERATING MODE (6): **N**

POWER LEVEL (10): **100**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(k)	<input type="checkbox"/> 20.406(i)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.38(a)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.38(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> OTHER (Specify in Abstract Below and in Text, NRC Form 366A)
<input type="checkbox"/> 20.409(a)(1)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	
<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(j)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(k)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: **M. R. Kansler, Station Manager** TELEPHONE NUMBER: **804-357-3184**

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRCDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRCDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If so, complete EXPECTED SUBMISSION DATE):  NO:  40

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On April 10, 1992, with Unit 1 in Cold Shutdown and Unit 2 at 100% power, one train of Channel 1 of the Intake Canal Level Sensing System was discovered to be in its normal operating position, rather than in its tripped condition. Both trains of the channel had been placed in trip on March 25, 1992, as required by the Technical Specification Table 3.7-2, Item 5 action note, preparatory to isolating a portion of the canal intake structure. The exact cause of the condition is undetermined. However, contractor personnel were working in the vicinity and it has been concluded that the switch position was inadvertently moved when the key in the switch was knocked by a contractor climbing into the area above the switch. Inasmuch as the other three channels of the sensing system remained fully operable during the period of interest, the health and safety of the public were unaffected. The switch configuration will be evaluated for appropriate protective measures and this event will be discussed by Station Management at upcoming Employee Update Meetings. This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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 (F530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (2150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Surry Power Station, Unit 2	DOCKET NUMBER (2) 0500028192	LER NUMBER (6)			PAGE (3)	
		YEAR 00	SEQUENTIAL NUMBER 05	REVISION NUMBER 00	02	OF 04

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

**1.0 DESCRIPTION OF THE EVENT**

On April 10, 1992, with Unit 1 in Cold Shutdown and Unit 2 at 100% power, station personnel were in the process of removing stop logs on the high level intake structure and restoring Channel 1 of the Intake Canal Level Sensing System [EIS-KE,LS] to service. Both trains of this channel had been placed in trip on March 25, 1992, in accordance with the Technical Specification Table 3.7-2, Item 5 action note, preparatory to installing stop logs to remove a portion of the canal's intake structure from service. However, when the channel was being returned to service, one train was found in its operating, rather than its tripped, condition.

The Circulating Water (CW) and Service Water (SW) Systems [EIS-KE] are gravity flow systems supplied by a concrete lined intake canal. The intake canal is maintained at a predetermined level with water pumped from the James River. This water provides the ultimate heat sink for both units.

When a portion of the intake structure is isolated, or "stop-logged", the conditions within that portion no longer accurately reflect those of the canal itself. Therefore, the level sensing device is considered inoperable and is placed in trip in accordance with Technical Specifications. This operation is performed by technicians utilizing a keyswitch provided for the purpose. After placing the switch in the trip position, the key is "captured" by the lock and cannot be removed until it is returned to the normal, operating position. The key is tagged and controlled by Operations Department Logs.

At some time during the interval between March 25, 1992, when both trains of Channel 1 were placed in trip and April 10, 1992, when the discrepant condition was discovered, one train of Channel 1 Intake Canal Level was returned to the normal operating mode. Operating either unit in this condition is a violation of Technical Specifications and is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

**2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS**

The intake canal level protection system consists of four safety-related level sensing probes installed in four of the eight high level intake structures (screenwells). Two level sensors are located in Unit 1 screenwells 1B and 1D and the other two are located in Unit 2 screenwells 2A and 2C. Each of the four detectors is a channel feeding

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 (F-930), 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)  Surry Power Station, Unit 2	DOCKET NUMBER (2)  0 5 0 4 0 2 8 1 9 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		— 0	0 5	— 0 0	0 3	OF 0 4

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

two separate trains of protection logic. Each train uses a three-out-of-four matrix to actuate on a low canal level of 23.5 feet. Satisfying either train of this logic will trip both units' turbines, close the CW and SW valves to the Component Cooling Heat Exchangers [EHS-CC,HX] and Bearing Cooling Heat Exchangers [EHS-KG,HX], and close both units' condenser CW inlet and outlet valves [EHS-KE,ISV]. These actuations are designed to ensure adequate intake canal inventory is available to provide SW flow to the Recirculation Spray Heat Exchangers [EHS-BE,HX] in the event of a Design Basis Accident. Each channel is provided with the capability to place both trains from the channel in a tripped mode. This feature allows for testing or continued unit operation with an inoperable channel while maintaining the system's required degree of redundancy.

Throughout the period covered by this report, the three remaining channels were operable and capable of performing the required actions on low canal level. With one train of one channel inoperable and not in the trip mode, an additional channel failure in a non-conservative direction could prevent automatic initiation of the required CW and SW isolation during an event. However, control room indications and annunciators are available to alert operators of a low canal level condition. Abnormal, emergency, and annunciator response procedures provide operator direction to take the required actions in the event of a low level condition. In addition, the affected screenwell was drained during approximately half of the time that the stop logs were installed. With the screenwell drained, the affected train would have sensed the actual low level condition and responded as though it had been properly placed in the tripped position. Therefore, the health and safety of the public were unaffected.

**3.0 CAUSE OF THE EVENT**

The exact cause of the event is undetermined. However, contractor personnel were working in the vicinity, and it has been concluded that the switch position was inadvertently moved when the key in the switch was knocked by a contractor climbing into the area above the switch.

**4.0 IMMEDIATE CORRECTIVE ACTION(S)**

No immediate corrective action was necessary since stop logs had been removed and the switches were being returned to their normal, operating position when the condition was discovered. Contractor personnel had completed their work in the area on April 4, 1992.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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 2	DOCKET NUMBER (2)  0 5 0 0 0 2 8 1 9 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0 0 5	0 0	0 4	OF	0 4

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

5.0 ADDITIONAL CORRECTIVE ACTION(S)

None

6.0 ACTIONS TO PREVENT RECURRENCE

Because of a similar incident in the past (Unit 1 LER 91-002-00) where an instrument air line was accidentally stepped on and broken, a "Problem Alert" memorandum was issued to station and contractor personnel on May 15, 1991. This memorandum pointed out the potential for damage that a misplaced step could cause and encouraged caution when working in cramped areas. To emphasize the importance of these events, Station Management will review them at a regularly scheduled Employee Update Meeting. It will be stressed that proper and safe work practices prohibit climbing upon, standing upon, or changing the status of plant equipment. In addition, the configuration of the switch and its location are under evaluation. Appropriate changes will be made based on the recommendations from this evaluation.

7.0 SIMILAR EVENTS

Unit 1

LER 91-002-00 "Two Charging Pumps and One Charging Pump Service Water Pump Inoperable Simultaneously Due to Instrument Air Line Failure Caused by Personnel Error"

8.0 ADDITIONAL INFORMATION

None