10CFR50.73

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

July 13, 1993

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

Serial No.: 93-430
SPS:VAS
Docket Nos.: 50-280
50-281
License Nos.: DPR-32
DRP-37

Dear Sirs:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following updated Licensee Event Report applicable to Surry Power Station Units 1 and 2.

REPORT NUMBER

50-280/50-281/93-007-01

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

IE22
1/1

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, Units 1 and 2	0 5 0 0 0 2 8 0	1 OF 0 4

TITLE (4) Missed Surveillance Due to Failure to Test One Contact of the Auxiliary Feedwater Pump Lo-Lo Steam Generator Level Auto Start Logic

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 5 0 0 0
0 6	1 6	9 3	9 3	— 0 0 7	— 0 1	0 7	1 3	9 3		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 April 23, 1993, with Unit 1 operating at 100% power and Unit 2 at Cold Shutdown, the continuing review of Technical Specification (TS) surveillance implementation identified a missed surveillance. TS table 4.1-1, item 28, requires that the Turbine Trip Inputs to Reactor Protection be functionally tested prior to each start up. Periodic Test, 1/2-PT-29.3 is performed to satisfy this requirement, but does not test the circuitry to verify the turbine trip signal is supplied to Reactor Protection. On June 16, 1993, with Unit 1 and Unit 2 at 100% power, an incomplete channel calibration surveillance test was also identified. TS table 4.1-1, item 32a, requires that the steam generator water low low level instrumentation channels for auxiliary feedwater pump auto-start be calibrated during each refueling outage. Contrary to this requirement, PT-15.8 for Unit 2 did not completely test the entire auto-start matrix. Appropriate changes have been made to the procedure.

The health and safety of the public were not affected at any time during these events because subsequent testing determined the affected circuitry was capable of performing the required functions.

This report is being made pursuant to 10CFR50.73(a)(2)(i)(B) as the station was operated in a condition not allowed by the TS 4.1.A.

1.0 DESCRIPTION OF THE EVENT

On April 23, 1993, with Unit 1 operating at 100% power and Unit 2 at Cold Shutdown for a scheduled refueling outage, the continuing review of Technical Specification (TS) surveillance implementation by Engineering identified a missed surveillance. TS table 4.1-1, item 28, requires that the Turbine Trip Inputs to Reactor Protection [EIIS-JC] be functionally tested prior to each start up if not done within the previous week. A turbine trip is sensed by two out of three signals from auto stop oil pressure or four out of four stop valve closure signals. A turbine trip causes a direct reactor trip above 10% power.

Periodic Test procedure, 1/2-PT-29.3, "Turbine Trip Setpoint" is performed to satisfy this requirement, but does not verify that the turbine trip signal (two out of three Auto Stop Oil Channels [EIIS-JJ] and four out of four Turbine Stop Valves [EIIS-JJ-V]) is supplied to Reactor Protection. This procedure verifies the turbine trip, but does not test the reactor protection circuitry as required by TS table 4.1-1, item 28. The surveillance requirement of item 28 is not met until a reactor protection logic test (either 1/2-PT-8.1, "Reactor Protection System Logic for Normal Operations" or 1/2-PT-8.2, "Reactor Protection Logic") and also 1/2-PT-29.3 are both performed. During some previous start ups, reactor protection logic testing was not performed until after the unit was on line. There have been short periods of missed surveillances following these start ups before the monthly logic testing (1/2-PT-8.1) was performed.

On June 16, 1993, with Unit 1 and Unit 2 at 100% power, the continuing review of TS surveillance implementation by Engineering identified that a complete channel calibration surveillance test was not performed during certain refueling outages due to a procedural deficiency. TS table 4.1-1, item 32a, requires that the steam generator water low low level instrumentation channels [EIIS-SG-LI] for auxiliary feedwater pump [EIIS-BA-P] auto-start be calibrated during each refueling outage. Contrary to this requirement, PT-15.8 for Unit 2, "Steam Generator Low Low Level Test", did not completely test one contact in the 2 out of 3 logic circuitry of the auto-start matrix of the turbine driven auxiliary feedwater pump. Therefore, TS 4.1.A requirements have not been fully met during certain refueling outages. Unit 1 procedures had been changed to incorporate complete testing of the entire auto-start matrix for the turbine driven auxiliary feedwater pump.

This report is being made pursuant to 10CFR50.73(a)(2)(i)(B) as the station was operated in a condition not allowed by TS 4.1.A.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

No significant safety consequences resulted from these conditions because subsequent testing determined the affected circuitry was capable of performing the required functions. Monthly Periodic Logic Testing was satisfactorily performed shortly after each start up for each unit and the turbine trip reactor protection circuitry proved to be operable. Subsequent testing verified the steam generator low low level 2 out of 3 logic auto-start matrix for the turbine driven auxiliary feedwater pump to be operable.

Therefore, the health and safety of the public were not affected at any time during these previous events.

3.0 CAUSE OF THE EVENT

These events were caused by personnel error resulting in a procedural deficiency for not fully testing turbine trip to reactor trip components and steam generator low low level logic circuitry for turbine driven auxiliary feedwater pump auto-start.

Procedure 1/2-PT-29.3 does test the turbine trip but does not test the reactor protection circuitry. Procedure 1/2-PT-8.1 or 1/2-PT-8.2 overlap to check the reactor protection circuitry. Procedure 1/2-PT-29.3 and 1/2-PT-8.1 or 1/2-PT-8.2 must both be performed to satisfy TS table 4.1-1, item 28.

Procedure PT-15.8 did not completely test the entire auto-start matrix for the turbine driven auxiliary feedwater pump for Unit 2. During certain refueling outages, it has been determined that the Unit 2 procedure failed to verify one set of contacts operable in the 2 out of 3 auto-start logic. A request to revise the procedure had been written to specify testing for each of the logic combinations in the 2 out of 3 auto-start matrix. However, a permanent change was never submitted for the Unit 2 procedure due to personnel error. Unit 1 procedures had been changed to incorporate complete testing of the entire auto-start matrix for the turbine driven auxiliary feedwater pump.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

The immediate corrective action was to verify that Unit 1 had been fully tested (1-PT-29.3 and 1-PT-8.1 have been satisfactorily performed). It was also verified that Unit 2 was fully tested prior to start up following refueling for cycle 12 operation (2-PT-29.3 and 2-PT-8.2 have been performed).

At 1737 on June 16, 1993, a 24 hour clock was entered in accordance with TS 4.0.3 due to missed surveillance. The untested steam generator water low low level instrumentation channel was placed in trip by lifting the affected leads, and the 24 hour clock was exited on 6/17/93 at 1328 hours. After satisfactory testing of the affected contacts, the auto-start matrix for the turbine driven auxiliary feedwater pump was proven operable and the pump was returned to service.

5.0 ADDITIONAL CORRECTIVE ACTION(S)

Appropriate changes will be made to the surveillance procedures to ensure TS table 4.1-1, item 28 requirements are met. Appropriate changes have been made to the surveillance procedure for Unit 2 to ensure TS table 4.1-1, item 32a requirements are met.

6.0 ACTIONS TO PREVENT RECURRENCE

The revision to the Unit 1 and 2 surveillance procedures to ensure TS table 4.1-1, item 28 and 32a requirements are met will be sufficient to preclude recurrence. In addition, a structured review of TS required surveillance's, including engineering reviews, procedure upgrades and Quality Assurance activities is being undertaken to identify other

surveillance deficiencies. This program will continue until the TS required surveillance's and associated procedures have been reviewed. Any additional discrepancies will be appropriately dispositioned, categorized and reported in accordance with the Station's deviation reporting and corrective action programs.

The process in which procedures are permanently revised will be changed to ensure that both units are evaluated whenever a change request is submitted for a single unit.

7.0 SIMILAR EVENTS

Missed surveillances concerning failure to test entire component circuitry include:

LER S1-92-003-00/1/2: Incomplete Engineering Safety Features Testing Due to Procedure Deficiency

LER S2-91-007-00: Failure to Full Flow Test 2-RH-47 Due to Procedure Deficiency

8.0 ADDITIONAL INFORMATION

None.