

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-281 Surry Power Station, Unit 2, Virginia Electric & Powe 05000281
 AUTH.NAME AUTHOR AFFILIATION
 CHRISTIAN, D.A. Virginia Power (Virginia Electric & Power Co.)
 RECIPIENT NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-003-00: on 960512, Unit 2 pressurizer safety valve as found lift setting out of tolerance. Valve was reassembled & lift setting was established & tested satisfactorily. W/960607 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

05000281

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

June 7, 1996

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

Serial No.: 96-296
SPS: BCB
Docket Nos.: 50-281
License Nos.: DPR-37

Dear Sirs:

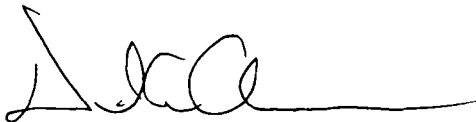
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to Surry Power Station Unit 2.

REPORT NUMBER

50-281/96-003-00

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,



D. A. Christian
Station Manager

Enclosure

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

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

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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 (MNNB 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 2	DOCKET NUMBER (2) 05000 - 281	PAGE (3) 1 OF 4
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TITLE (4)
Unit 2 Pressurizer Safety Valve As-Found Lift Setting Out of Tolerance

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 NAME	DOCKET NUMBER
05	12	96	96	-- 003 --	00	06	07	96	FACILITY NAME	DOCKET NUMBER
									05000 -	05000 -

OPERATING MODE (9) N POWER LEVEL (10) 0%	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR:(Check one or more) (11)										
	20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(c)	
	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 D. A. Christian, Station Manager	TELEPHONE NUMBER (Including Area Code) (804) 357-3184
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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
X	AB	RV	C710	Y					

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 15 single-spaced typewritten lines) (16)

On May 12, 1996, with Unit 2 at Refueling Shutdown, setpoint testing revealed that the as-found lift setting for pressurizer safety valve (PSV) 2-RC-SV-2551B (2379 psig) was out of tolerance. Technical Specification (TS) 3.1.A.3.b requires the as-found lift setting for the PSVs to be 2485 psig ± 3% (2411 to 2559 psig). A Category II Root Cause Evaluation reviewed the previous test data for 2-RC-SV-2551B and the methodology and conditions associated with the as-found testing. No discrepancies were identified relative to the conduct of the as-found testing and no adverse conditions or precursor problems were identified from the review of previous test data. To ensure internal integrity, 2-RC-SV-2551B was disassembled and inspected by the valve vendor. The inspection revealed no mechanical abnormalities and verified that critical tolerances and the seating surfaces of the valve were acceptable. The valve was reassembled and the lift setting was established and tested satisfactorily. The as-left lift settings were within 2485 psig ± 1% as required by TS 3.1.A.3.b. Based on the results of the reviews and inspections, the cause of this event could not be conclusively determined. This event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)

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

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Surry Power Station, Unit 2	05000 - 281	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		96	- 003 -	00	

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

1.0 DESCRIPTION OF THE EVENT

During the 1996 Unit 2 refueling outage, the three pressurizer safety valves (PSV) were removed and sent to Wyle Laboratories for setpoint testing. The testing was performed in accordance with station testing procedures and the Surry Power Station ASME Section XI Testing Program for Pumps and Valves.

On May 12, 1996, with Unit 2 at Refueling Shutdown, the setpoint testing revealed that the as-found lift setting for PSV 2-RC-SV-2551B (2379 psig) was out of tolerance. The results of subsequent valve lifts (performed for information) were within the as-found tolerance. Technical Specification (TS) 3.1.A.3.b requires the as-found lift setting for the PSVs [E1IS-AB,RV] to be 2485 psig \pm 3% (2411 to 2559 psig). This deviation from the allowable tolerance represents a condition prohibited by TS and, therefore, is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

An engineering evaluation was performed to determine the impact of the low as-found lift setpoint for PSV 2-RC-SV-2551B. The primary concern associated with this condition is the potential for the PSV to open before a high pressurizer pressure trip (HPPT) could occur. To address this concern, the as-found HPPT setpoints were evaluated relative to the as-found PSV setpoint. Since the as-found HPPT setpoints were less than the as-found PSV setpoint, engineering determined that a reactor trip on high pressurizer pressure would have occurred before PSV 2-RC-SV-2551B would have opened.

Based on the discussion above, the engineering evaluation concluded that the low as-found lift setpoint for PSV 2-RC-SV-2551B did not place the plant in an unanalyzed condition. Therefore, this event resulted in no safety consequences or significant implications and the health and safety of the public were not affected at any time.

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

3.0 CAUSE

A Category II Root Cause Evaluation (RCE) was performed to determine the cause of the deviating condition. The RCE included a review of the methodology and conditions associated with the as-found testing, and a review of the previous test data for 2-RC-SV-2551B. No discrepancies were identified relative to the conduct of the as-found testing and no adverse conditions or precursor problems were identified from a review of previous test data.

To ensure internal integrity, 2-RC-SV-2551B was disassembled and inspected by the valve vendor, Crosby Valve and Gage Company. The inspection revealed no mechanical abnormalities and verified that critical tolerances and the seating surfaces of the valve were acceptable.

The PSVs currently used at Surry are a new design that have been in service for less than two operational cycles. Consequently, insufficient test data exists to enable the positive identification of any developing trends.

Based on the results of the reviews and inspections described above, the cause of this event could not be conclusively determined.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

No immediate operational corrective actions were necessary since Unit 2 was at Refueling Shutdown.

A Deviation Report was submitted to document that the as-found lift setting for PSV 2-RC-SV-2551B was out of tolerance.

5.0 ADDITIONAL CORRECTIVE ACTIONS

As described in Section 3.0, PSV 2-RC-SV-2551B was disassembled and inspected by the vendor. Minor lapping was performed to restore the surfaces of the valve's disc insert and nozzle seats. The valve was reassembled and the lift setting was established and tested satisfactorily. The as-left lift settings were within 2485 psig \pm 1% as required by TS 3.1.A.3.b.

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

6.0 ACTIONS TO PREVENT RECURRENCE

The results of PSV testing is monitored to identify any trends that may be indicative of valve degradation. When test results are unsatisfactory, Virginia Power's testing program requires that the testing be performed on a more frequent basis than that required by the ASME Section XI Testing Program for Pumps and Valves.

7.0 SIMILAR EVENTS

During setpoint testing on September 19, 1995, the as-found lift setting for Unit 1 PSV 1-RC-SV-1551C was determined to be out of tolerance. The cause of this event was attributed to the test methodology used by the valve manufacturer to test the valve prior to installation. Licensee Event Report (LER) 50-280/95-008-00 reported this event pursuant to 10 CFR 50.73(a)(2)(i)(B).

During setpoint testing on February 10, 1995, the as-found lift settings for Unit 2 main steam safety valves 2-MS-SV-202C and 2-MS-SV-205A were determined to be out of tolerance. During setpoint testing on February 15 and 16, 1995, the as-found lift settings for Unit 2 PSVs 2-RC-SV-2551B and 2-RC-SV-2551C were determined to be out of the allowable $\pm 1\%$ tolerance. Note: the tolerance was subsequently changed to $\pm 3\%$. The cause of this event was attributed to setpoint drift. Licensee Event Report (LER) 50-281/95-002-00 reported this event pursuant to 10 CFR 50.73(a)(2)(i)(B).

8.0 MANUFACTURER/MODEL NUMBER

Crosby Valve and Gage Company
Pressurizer Safety Valve 6K26
Model No. HB-86-BP

9.0 ADDITIONAL INFORMATION

Unit 1 was operating at 100% power and was not affected by this event.