

CATEGORY 1

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 FACIL: 50-281 Surry Power Station, Unit 2, Virginia Electric & Power 05000281
 AUTH. NAME AUTHOR AFFILIATION
 GRECHECK, E.S. Virginia Power (Virginia Electric & Power Co.)
 GRECHECK, E.S. Virginia Power (Virginia Electric & Power Co.)
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 99-002-00: on 990425, MSSVs tested out of tolerance for as found setpoint, was revealed. Caused by minor setpoint drift. No immediate action required. Deviation rept submitted for each valve. With 990518 ltr.

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NOTES:

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Virginia Electric And Power Company
Surry Power Station
5570 Hog Island Road
Surry, Virginia 23883

May 18, 1999

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
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Serial No.: 99-284
SPS: JCS
Docket No.: 50-281
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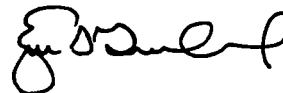
Dear Sirs:

Pursuant to 10CFR50.73, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to Surry Power Station Unit 2.

Report No. 50-281/1999-002-00

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,



E. S. Grecheck
Site Vice President

Enclosure

Commitments contained in this letter: None

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9905240126 990518
PDR ADOCK 05000281
S PDR

JE221

cc: U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303

Mr. R. A. Musser
NRC Senior Resident Inspector
Surry Power Station

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1) SURRY POWER STATION , Unit 2		DOCKET NUMBER (2) 05000 - 281	PAGE (3) 1 OF 4
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TITLE (4)
Main Steam Safety Valves Tested Out of Tolerance for As Found Setpoint

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	DOCUMENT NUMBER
04	25	99	1999	-- 002 --	00	05	18	99	FACILITY NAME	05000-
									FACILITY NAME	05000-

OPERATING MODE (9) NA	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
		20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)		
POWER LEVEL (10) 0 %		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)		
		20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71		
		20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER		
		20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below		
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		or in NRC Form 366A		

LICENSEE CONTACT FOR THIS LER (12)	
NAME E. S. Grecheck, Site Vice President	TELEPHONE NUMBER (Include Area Code) (757) 365-2000

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE	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 April 25, 1999, April 27, 1999, and April 28, 1999, with unit 2 in Refueling Shutdown, setpoint testing of Unit 2 Main Steam Safety Valves (MSSVs) revealed that the lift settings for three valves were outside of the as found setpoint tolerance ($\pm 3\%$) that is allowed by Technical Specification (TS) 3.6.A. The event is reportable pursuant to 10CFR50.73(a)(2)(i)(B) for conditions prohibited by TS 3.6.A.

The safety valves were overhauled, adjusted, and tested to verify that they were within the correct as left setpoint tolerance ($\pm 1\%$) allowed by TS.

The event posed no significant safety implications because the safety valves would have still performed their safety function in the event of an overpressure condition. The health and safety of the public were not affected at any time.

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TEXT CONTINUATION

FACILITY NAME (1) Surry Power Station Unit 2	DOCKET 05000 - 281	LER NUMBER (6)			PAGE (3) 2 OF 4
		YEAR 1999	SEQUENTIAL NUMBER -- 002 --	REVISION NUMBER 00	

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

1.0 DESCRIPTION OF THE EVENT

On April 25, 1999, Unit 2 was in Refueling Shutdown. As part of the outage scope, the five Main Steam Safety Valves (MSSVs) [EISS-SB,RV] from "C" header were setpoint tested at Wyle Laboratories. The MSSVs were tested in accordance with a station testing procedure developed pursuant to the Surry Power Station ASME Section XI Testing Program. The as found setpoint of valve 2-MS-SV-203C was 1143.8 psig, outside the acceptable range of 1077 psig – 1143 psig. Due to this failure, two valves from "A" header were selected for expansion of test scope.

On April 27, 1999, the as found setpoint of valve 2-MS-SV-201C was 1127 psig, outside the acceptable range of 1053 psig – 1117 psig. Due to this failure, two more valves from "A" header were selected for scope expansion.

On April 28, 1999, the as found setpoint of valve 2-MS-SV-204A was 1084.6 psig, outside the acceptable range of 1087 psig – 1153 psig. Due to this failure, all remaining MSSVs were tested for a total of fifteen valves. No additional failures were found during the testing.

The event is reportable pursuant to 10CFR50.73(a)(2)(i)(B) for conditions prohibited by Technical Specifications (TSs) 3.6.A.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

The MSSVs provide overpressure protection for Main Steam Supply System piping upstream of the main steam trip valves [EISS-SB,ISV]. The as found lift pressure settings for the MSSVs are bounded by the safety analysis for overpressure transients that are part of the current licensing basis.

Each steam line has five associated safety valves. For the valves whose as found lift pressures were above the design lift (2-MS-SV-201C and 203C) there is no safety concern. The valves had as found lifts of 3.88% and 3.05% above the design lift setpoint, respectively. From a safety point of view, the order in which the valves open is not a concern, as long as there is adequate discharge before the upper limit of the pressure band is reached.

A valve that opens below its lower limit (2-MS-SV-204A) is not a safety concern. This valve had an as found lift pressure of 1084.6 psig, 3.16% below the design lift setpoint. This valve opening first in this header would not lead to a safety concern because it would continue to provide relief capacity and its setpoint was sufficiently above the operating range for steam line pressure.

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

3.0 CAUSE

The MSSVs experienced minor setpoint drift which can be expected under normal operating conditions. Although the specific cause of such setpoint drift is not known, its occurrence is well documented in the industry.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

Unit condition at the time of discovery did not require any immediate actions to be performed. A Deviation Report was submitted for each valve to document this condition.

5.0 ADDITIONAL CORRECTIVE ACTIONS

The MSSVs with the As Found lift pressures outside the setpoint allowed by TS 3.6.A were inspected and overhauled by the manufacturer, Dresser Industries, at the Wyle Testing Laboratory. The MSSVs were as left tested in accordance with procedure 2-MPT-0427-02, "Main Steam Safety Setpoint Verification," to verify that the setpoint was within the $\pm 1\%$ as left requirement of TS 3.6.A.

6.0 ACTIONS TO PREVENT RECURRENCE

Safety valve setpoint drift is a recognized phenomenon. Periodic testing and maintenance will continue to be performed in accordance with Virginia Power ASME Section XI Testing Program for Pumps and Valves to ensure that the valves are maintained as required by TS.

7.0 SIMILAR EVENTS

Unit 2 LER 95-002-00, "Main Steam and Pressurizer Safety Valves As Found Lift Settings Out of Tolerance"

Unit 1 LER 97-004-00, "Main Steam Safety Valves Out of Tolerance Due to Minor Setpoint Drift."

Unit 2 LER 97-003-00, "Main Steam Safety Valves As Found Setpoint Found Out of Tolerance."

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

8.0 MANUFACTURER/MODEL NUMBER

Consolidated Dresser Industries/Type 3700

9.0 ADDITIONAL INFORMATION

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