

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

April 9, 2001

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555-0001

Serial No.: 01-205
SPS: JSA
Docket No.: 50-281
License No.: DPR-37

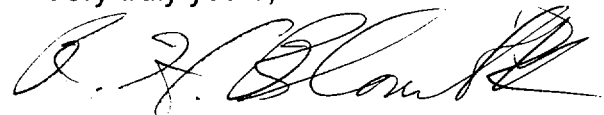
Dear Sirs:

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. 50-281/2001-001-00

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,



R. H. Blount II, Site Vice President
Surry Power Station

Enclosure

Commitments contained in this letter:

1. Field verification will be conducted and necessary corrective actions implemented as unit operation and exposure levels permit.
2. The station snubber program and applicable maintenance procedures will be revised to include criteria for verification of snubber cold piston settings.

IE22

cc: United States Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23 T85
Atlanta, Georgia 30303-8931

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

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1) SURRY POWER STATION , Unit 2	DOCKET NUMBER (2) 05000 - 281	PAGE (3) 1 OF 4
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TITLE (4)
Extended Snubber Results in Technical Specifications Violation

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
02	09	01	01	-- 01 --	00	04	09	01	FACILITY NAME	DOCUMENT NUMBER
									FACILITY NAME	DOCUMENT NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
		20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
POWER LEVEL (10)	100 %	20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
		20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)
		20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
		20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
		20.2203(a)(2)(v)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
		20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
		20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)	
NAME R. H. Blount II, 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
B	AB	SNB	ITT Grinnell	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 February 9, 2001, with Unit 2 operating at 100% reactor power, it was determined that a support snubber on the "B" pressurizer safety valve discharge pipe was fully extended. Analyses concluded the snubber would be loaded beyond its faulted load under design dynamic loading conditions and therefore, could not be considered operable. Due to Technical Specifications requiring snubbers to be operable during reactor operation, a 72-hour limiting condition of operation was entered at 1049 hours. Unit 2 was shut down and the snubber in question was replaced. Further investigation determined the snubber had been inoperable beyond the allowed outage time, therefore, this event is reportable pursuant to 10CFR50.73(a)(2)(i)(B) for a condition prohibited by Technical Specifications. Field verification will be conducted and necessary corrective actions implemented as unit operation and exposure levels permit. The station snubber program will be revised to include criteria for verification of snubber cold piston settings. With the snubber in the fully extended condition, calculations of stress levels in the piping indicated that piping components (other than the snubber) would maintain structural integrity in all loading conditions. Therefore, this event resulted in no safety consequences or significant implications and the health and safety of the public were not affected.

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

1.0 DESCRIPTION OF THE EVENT

In November 2000, a team was formed to review possible causes for Unit 2 leaking Pressurizer Safety Relief Valves (PSV) [IEEE-AB-PZR-RV]. The valves were observed to have minor leakage following start-up from the fall refueling outage. After evaluating several possible causes, it was determined that excessive PSV nozzle loading could contribute to PSV leakage. Snubber [IEEE-AB-SNB] 2-RC-HSS-116 on the "B" PSV discharge piping was identified as being a critical support for "B" PSV nozzle loading. On February 9, 2001, with Unit 2 at 100% reactor power, inspection of snubber 2-RC-HSS-116 verified the snubber to be fully extended. The snubber was declared inoperable and on February 9, 2001 at 1049 hours, a 72-hour limiting condition of operation (LCO) was started in accordance with Technical Specifications 3.20.B. On February 10, 2001, Unit 2 was brought to an intermediate shutdown condition at reduced reactor coolant system (RCS) pressure to alleviate industrial safety concerns associated with snubber replacement. The snubber was replaced with minor modification and was declared operable on February 10, 2001 at 1647 hours. At this time, the Technical Specification action statement was exited.

A Root Cause Team was assembled to determine the cause of this event. The team determined that this snubber had been changed from a Lynair 1½-inch diameter snubber with 6-inch stroke to a Miller 1½-inch diameter snubber with 5-inch stroke in 1985. However, the extension hardware necessary to accommodate the shorter stroke had not been installed. This resulted in an inadequate stroke to accommodate full thermal movement of the piping. Although this snubber had been inspected and functionally tested since installation, the procedures for removal, installation and inspection did not direct verification of cold piston setting (CPS). Therefore, the improper installation went undetected until February 9, 2001.

Technical Specifications 3.20.A requires all snubbers, required to protect the RCS, to be operable during reactor operation. Technical Specification 3.20.B requires that any snubber found inoperable must be repaired or replaced within 72 hours. As a result of the as found condition and ensuing investigation, snubber 2-RC-HSS-116 was considered inoperable for a time exceeding 72 hours. Therefore, this event is reportable pursuant to 10CFR50.73(a)(2)(i)(B) for a condition prohibited by Technical Specifications.

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

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

With the snubber in the fully extended condition, calculations of stress levels in the piping indicated that piping components (other than the snubber) would maintain structural integrity in all dynamic loading conditions including seismic, PSV, and Power Operated Relief Valve discharge conditions. Although the overextended snubber could contribute to PSV leakage due to excessive nozzle loading, measured leakage was within Technical Specification allowable limits. As such, there were no significant safety consequences or implications. Therefore, the health and safety of the public were not affected by this event.

3.0 CAUSE

In April 1984, LER 84-006 reported the failure of a number of hydraulic and mechanical snubbers at Surry Unit 1 to pass the inservice periodic functional testing required by Technical Specifications. As corrective action, all Lynair-cylinder Grinnell hydraulic snubbers were replaced with Miller-cylinder Grinnell hydraulic snubbers or rebuilt with new acceptable seals. 1½-inch diameter Lynair snubbers have a 6-inch stroke, while 1½-inch diameter Miller snubbers have a 5-inch stroke. Replacements of the snubbers began in 1984. Engineering Work Requests 84-90 and 84-90A were written to change snubber models and required the new 1½-inch snubbers to be installed with elongated rod eyes, or spacer plates, to compensate for the change in length. In 1985, snubber 2-RC-HSS-116, a Lynair 1½-inch diameter snubber with 6-inch stroke, was replaced with a Miller 1½-inch diameter snubber with a 5-inch stroke. During snubber replacement, the new snubber was installed without the necessary extension hardware resulting in an inadequate stroke to accommodate full thermal movement. Review of the work order used to replace the original snubber determined it did not provide appropriate direction for changing from a 6-inch stroke to a 5-inch stroke snubber.

Further investigation found that the initial installation guidance did not check initial CPS nor did the station snubber program contain necessary inspection elements to periodically verify snubber CPS. Therefore, the improper snubber CPS went undetected until February 9, 2001.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

A station corrective action system report was submitted for the inoperable snubber and on February 9, 2001, at 1049 hours, a 72-hour LCO was started IAW Technical Specifications 3.20.B to repair or replace the snubber. On February 10, 2001, Unit 2 was brought to intermediate shutdown and depressurized to facilitate snubber replacement. The replacement snubber was installed with 3 inches of spacer plates to place the snubber within the range of required settings to allow for thermal expansion.

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

5.0 ADDITIONAL CORRECTIVE ACTIONS

During 1984 and 1985, certain 1½-inch diameter size snubbers were replaced with snubbers having a different stroke. Engineering has compared snubber CPSs recorded for all 1½-inch diameter snubbers in both Units 1 and 2 to the required allowable ranges. Seven other snubbers were identified to be outside the allowable range for cold piston settings. A review of a sample of different sized snubbers was also conducted to validate the extent of the condition. During this review, three 5-inch stroke snubbers with various diameters were also found to be outside the allowable range for CPS. However, thermal loads combined with design dynamic loads are within vendor allowable loads and affected piping and support stresses are within code allowable values. Therefore, these snubbers are operable. Evaluations are continuing to verify the full extent of the condition. Field verification will be conducted and necessary corrective actions implemented as unit operation and exposure levels permit.

6.0 ACTIONS TO PREVENT RECURRENCE

The station snubber program and applicable maintenance procedures will be revised to include criteria for verification of snubber cold piston settings. The current design change process in use today has the necessary controls to prevent similar problems from occurring.

7.0 SIMILAR EVENTS

None.

8.0 MANUFACTURER/MODEL NUMBER

ITT Grinnell Figure 200 Size 1½-inch x 5-inch stroke/Miller cylinder

9.0 ADDITIONAL INFORMATION

Unit 1 was operating at 100% at the time of this event.