

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

August 1, 2011

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

Serial No.: 11- 400
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. 50-281/2011-003-00

This report has been reviewed by the Station Facility Safety Review Committee and will be forwarded to the Management Safety Review Committee for its review.

Very truly yours,



Gerald T. Bischof,
Site Vice President
Surry Power Station

Enclosure

Commitment contained in this letter: None

IEAD
NAR

cc: U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower, Suite 1200
245 Peachtree Center Ave., NE
Atlanta, GA 30303-1257

NRC Senior Resident Inspector
Surry Power Station

NRC FORM 366 (10-2011)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB: NO. 3150-0104		EXPIRES 10/31/2013			
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)										
1. FACILITY NAME Surry Power Station, Unit 2					2. DOCKET NUMBER 05000 - 281			3. PAGE 1 OF 3		
4. TITLE Isolation of Main Feedwater Pump Results in Auxiliary Feedwater Actuation										
5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	30	11	2011	003	00	08	01	11		05000
9. OPERATING MODE N										
10. POWER LEVEL 000%										
11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)										
<input type="checkbox"/> 20.2201(b)		<input type="checkbox"/> 20.2203(a)(3)(i)		<input type="checkbox"/> 50.73(a)(2)(i)(C)		<input type="checkbox"/> 50.73(a)(2)(vii)				
<input type="checkbox"/> 20.2201(d)		<input type="checkbox"/> 20.2203(a)(3)(ii)		<input type="checkbox"/> 50.73(a)(2)(ii)(A)		<input type="checkbox"/> 50.73(a)(2)(viii)(A)				
<input type="checkbox"/> 20.2203(a)(1)		<input type="checkbox"/> 20.2203(a)(4)		<input type="checkbox"/> 50.73(a)(2)(ii)(B)		<input type="checkbox"/> 50.73(a)(2)(viii)(B)				
<input type="checkbox"/> 20.2203(a)(2)(i)		<input type="checkbox"/> 50.36(c)(1)(i)(A)		<input type="checkbox"/> 50.73(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(ix)(A)				
<input type="checkbox"/> 20.2203(a)(2)(ii)		<input type="checkbox"/> 50.36(c)(1)(ii)(A)		<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)		<input type="checkbox"/> 50.73(a)(2)(x)				
<input type="checkbox"/> 20.2203(a)(2)(iii)		<input type="checkbox"/> 50.36(c)(2)		<input type="checkbox"/> 50.73(a)(2)(v)(A)		<input type="checkbox"/> 73.71(a)(4)				
<input type="checkbox"/> 20.2203(a)(2)(iv)		<input type="checkbox"/> 50.46(a)(3)(ii)		<input type="checkbox"/> 50.73(a)(2)(v)(B)		<input type="checkbox"/> 73.71(a)(5)				
<input type="checkbox"/> 20.2203(a)(2)(v)		<input type="checkbox"/> 50.73(a)(2)(i)(A)		<input type="checkbox"/> 50.73(a)(2)(v)(C)		<input type="checkbox"/> OTHER				
<input type="checkbox"/> 20.2203(a)(2)(vi)		<input type="checkbox"/> 50.73(a)(2)(i)(B)		<input type="checkbox"/> 50.73(a)(2)(v)(D)		Specify in Abstract below or in NRC Form 366A				
12. LICENSEE CONTACT FOR THIS LER										
FACILITY NAME B. L. Stanley, Director Safety and Licensing							TELEPHONE NUMBER (Include Area Code) (757) 365-2003			
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT										
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	
X	SJ	P	B260	Y						
14. SUPPLEMENTAL REPORT EXPECTED						15. EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)						<input checked="" type="checkbox"/> NO				
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)										
<p>On May 30, 2011, at 0808 hours, with Surry Power Station Unit 1 at 100% power and Unit 2 at intermediate shutdown, securing of a Unit 2 Main Feedwater pump resulted in the actuation of the Unit 2 motor driven Auxiliary Feedwater (AFW) pumps. The Unit 2 B Main Feedwater (MFW) pump was undergoing maintenance when the running Unit 2 A MFW pump outboard motor bearing experienced high temperature due to low oil flow. A decision was made to secure the Unit 2 A MFW pump to prevent bearing damage. The pump motor breakers for the Unit 2 A MFW pump were opened and the Unit 2 motor driven AFW pumps automatically started as expected and fed the Unit 2 steam generators until the plant was realigned to feed the steam generators with the condensate pumps. Plant equipment responded as designed and the health and safety of the public were not affected. This report is being submitted pursuant to 10CFR50.73(a)(2)(iv)(A) for automatic actuation of the AFW system.</p>										

**LICENSEE EVENT REPORT (LER)
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NARRATIVE

1.0 DESCRIPTION OF THE EVENT

On May 30, 2011, at 0808 hours, with Surry Power Station Unit 1 at 100% power and Unit 2 at intermediate shutdown (ISD) (~ 405°F and ~ 823 psig) following a scheduled refueling, securing of Unit 2 A Main Feedwater (MFW) pump [EISS-SJ-P] resulted in Auxiliary Feedwater (AFW) [EISS-BA] actuation. The Unit 2 B MFW pump was undergoing maintenance for seal replacement when the running A MFW pump outboard motor bearing experienced high temperature due to low oil flow. Operators secured the A MFW pump and the Unit 2 motor driven AFW pumps automatically started, as expected.

A decision was made to secure the A MFW pump to prevent bearing damage with the knowledge that AFW would automatically start. The pump motor breakers for the A MFW pump were opened at 0808 hours and the Unit 2 motor driven AFW pumps automatically started as expected and fed the Unit 2 steam generators (SGs). The plant was subsequently realigned to feed the SGs with the condensate pumps [EISS-SD-P] and the motor driven AFW pumps were secured at 0821 hours.

Alternative actions that were considered to avoid AFW pump start would have taken additional time and would have extended operation of the A MFW pump at high temperatures. An 8 hour notification for the automatic actuation of AFW was made pursuant to 10CFR50.72(b)(3)(iv)(A).

This report is being submitted pursuant to 10CFR50.73(a)(2)(iv)(A) for automatic actuation of the AFW system.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

Plant equipment responded as designed and there was no challenge to normal plant operation. An evaluation determined this event to be of very low safety significance. The unit was maintained stable at ISD. There were no radiation releases due to these events. Therefore, the health and safety of the public were not affected at any time during this event.

3.0 CAUSE

When the Unit 2 A MFW pump outboard bearing increasing temperature was identified, Operations personnel made a decision to secure the MFW pump and allow the AFW actuation. The action was taken to protect plant equipment when the rapid increase in bearing temperature was noted. A cause evaluation determined debris was present in the Unit 2 A MFW pump lube oil system and caused the low oil flow to the A MFW pump outboard motor bearing.

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4.0 IMMEDIATE CORRECTIVE ACTION(S)

When AFW actuated, operators realigned condensate pumps to feed the SGs. The AFW pumps were then secured.

5.0 ADDITIONAL CORRECTIVE ACTIONS

The lube oil system for the Unit 2 A MFW pump was disassembled, cleaned, flushed, tested and placed back into service at 0817 hours on June 11, 2011.

6.0 ACTIONS TO PREVENT RECURRENCE

The action to secure the A MFW pump and the resulting AFW pump actuation was needed to prevent further damage to the pump.

7.0 SIMILAR EVENTS

None

8.0 MANUFACTURER/MODEL NUMBER

Main Feedwater Pump: Sulzer Bingham Pumps, Inc./CD

9.0 ADDITIONAL INFORMATION

Unit 1 was at 100% power and remained unaffected by the Unit 2 AFW actuation. Unit 2 continued with the scheduled refueling outage.