

Virginia Electric and Power Company
North Anna Power Station
P. O. Box 402
Mineral, Virginia 23117

May 24, 2006

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

Serial No.: 06-334
NAPS: MPW
Docket No.: 50-338
License No.: NPF-4

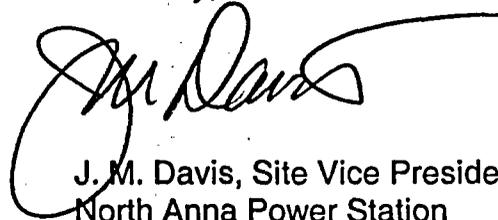
Dear Sirs:

Pursuant to 10CFR50.73, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Power Station Unit 1.

Report No. 50-338/2006-001-00

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.

Sincerely,



J. M. Davis, Site Vice President
North Anna Power Station

Enclosure

Commitments contained in this letter: None

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

Mr. J. T. Reece
NRC Senior Resident Inspector
North Anna Power Station

JE22

1. FACILITY NAME: NORTH ANNA POWER STATION , UNIT 1
 2. DOCKET NUMBER: 05000 338
 3. PAGE: 1 OF 3

4. TITLE: Manual Reactor Trip Due To Shutdown Bank "A" Group 2 Step Counter Inoperable

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCUMENT NUMBER
04	07	2006	2006	-- 001 --	00	05	24	2006	FACILITY NAME	05000
									FACILITY NAME	05000

9. OPERATING MODE: 3

10. POWER LEVEL: 0%

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME: J. M. Davis, Site Vice President
 TELEPHONE NUMBER (Include Area Code): (540) 894-2101

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	AA	CTR	W120	N					

14. SUPPLEMENTAL REPORT EXPECTED: YES (If yes, complete 15. EXPECTED SUBMISSION DATE) X NO

15. EXPECTED SUBMISSION DATE: MONTH: DAY: YEAR:

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On April 7, 2006, Unit 1 was in Mode 3, zero percent power, preparing for restart following a refueling outage. At 2217 hours, the "A" Shutdown Bank Group 2 step counter failed. As a result, at 2231 hours a manual reactor trip was initiated by opening the reactor trip breakers (RTB) in accordance with Technical Requirement (TR) 3.1.3. This is a valid actuation of the Reactor Protection System (RPS).

On April 8, 2006, at 0111 hours a non-emergency 8-hour report was made in accordance with 10 CFR 50.72(b)(3)(iv)(A) due to actuation of the Reactor Protection System. This event is reportable pursuant to 10 CFR 50.73 (a)(2)(iv)(A) for a condition that resulted in manual actuation of the Reactor Protection System. This event posed no significant safety implications because the reactor was subcritical when the RTBs were opened. Compliance with all Technical Requirements was achieved. Therefore, the health and safety of the public were not affected by this event.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

FACILITY NAME (1) NORTH ANNA POWER STATION UNIT 1	DOCKET 05000 - 338	LER NUMBER (6)			PAGE (3) 2 OF 3
		YEAR 2006	SEQUENTIAL NUMBER --001 --	REVISION NUMBER 00	

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

1.0 DESCRIPTION OF THE EVENT

On April 7, 2006, Unit 1 was in Mode 3, zero percent power, preparing for restart following a refueling outage. Unit 1 reactor coolant temperature and pressure were 547 degrees Fahrenheit and 2235 psig, respectively. As part of the performance for rod drop time measurement testing, the Shutdown Bank "A" Groups 1 and 2 control rods were being withdrawn from the core. At 2217 hours, the group step counters were declared inoperable as a result of Shutdown Bank "A" Group 2 step counter (EIS System AA, Component CTR) stopping at 215 steps while Group 1 and individual rod position indicators showed continued motion to 225 steps. As a result, at 2231 hours the reactor trip breakers (RTB) (EIS System AA, Component BKR) were manually opened in accordance with Technical Requirement 3.1.3 due to a mismatch of the Shutdown Bank "A" Group step counters.

Each Unit has eight control bank and four shutdown bank group step counters. All twelve Unit 1 group step counters had been replaced with digital step counters during the recent 2006 refueling outage. The existing mechanical group step counters were obsolete and prone to failure. All twelve step counters were replaced prior to rod drop time measurement testing including the Shutdown Bank "A" Group 2 step counter. The failed digital step counter was replaced on April 8, 2006, and rod drop time measurement testing was subsequently completed satisfactorily.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

This event posed no significant safety implications because the reactor was subcritical when the RTBs were opened. Compliance with all Technical Requirements was achieved. Therefore, the health and safety of the public were not affected by this event.

On April 8, 2006, at 0111 hours, a non-emergency 8-hour report was made in accordance with 10 CFR 50.72(b)(3)(iv)(A) due to actuation of the Reactor Protection System (EIS System-AA). This event is reportable pursuant to 10 CFR 50.73 (a)(2)(iv)(A) for a condition that resulted in actuation of the Reactor Protection System.

3.0 CAUSE

The manual reactor trip was the result of having a mismatch in group step counters. This was the result of the Shutdown Bank "A" Group 2 step counter stopping at 215 steps while Group 1 and individual rod position indicators showed continued motion to 225 steps. The failed digital step counter for Shutdown Bank "A" Group 2 was examined upon removal. Internal connections were noted to be inadequate resulting in intermittent operation. The connection issue is attributed to the manufacturing process. The other eleven new digital step counters all performed as designed with no problems noted

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

through multiple withdraws, insertions and resets. The extent of condition is limited to the Shutdown Bank "A" Group 2 step counter.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

The Control Room Operators performed the required actions of the Technical Requirements within the specified times.

5.0 ADDITIONAL CORRECTIVE ACTIONS

A manual reactor trip was initiated by opening the reactor trip breakers, inserting the shutdown banks into the core.

6.0 ACTIONS TO PREVENT RECURRENCE

The instrumentation corrective maintenance procedure will be revised to ensure replacement instructions include steps directing pre-installation testing and inspection.

7.0 SIMILAR EVENTS

The following events were reported via LERs. The cause for items 1 and 2 was equipment failure and Item 3 was caused by an improper position of the demand step counter cover.

1. LER 50-339/1998-001-00 dated 04/30/98, Manual Reactor Trip Due To Control Bank "B" Group 2 Step Counter Inoperable.
2. LER 50-339/2001-002-00 dated 04/24/01, Manual Reactor Trip Due To Control Bank "B" Group 2 Step Counter Inoperable.
3. LER 50-339/2004-002-00 dated 07/19/04, Manual Reactor Trip Due To Control Bank "D" Group 2 Step Counter Inoperable.

8.0 ADDITIONAL INFORMATION

Unit 2 was not affected by this event.

Mechanical Step Counters

Manufacturer: Whittaker Corporation

Model: 127FD100AS/3

Replacement Digial Step Counters

Manufacturer: CJ Enterprises

Model: DRSC100/B