10CFR50.73

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

June 13, 2008

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

Serial No.: 08-0338
NAPS: JHL
Docket Nos.: 50-338, 339
License Nos.:NPF-4, 7

Dear Sirs:

Pursuant to 10CFR50.73, Virginia Electric and Power Company hereby submits the following revised Licensee Event Report applicable to North Anna Power Station Units 1 and 2.

Report No. 50-338, 339/2008-001-00

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

Sincerely,

Daniel G. Stoddard, P.E.
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

NRC Senior Resident Inspector
North Anna Power Station

IE22
NRR

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES: 8/31/2010

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 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.

LICENSEE EVENT REPORT (LER)

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

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4. TITLE

Two Service Water Pumps Inoperable Greater Than Technical Specification Allowed Completion Time

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	DOCUMENT NUMBER
									North Anna Unit 2	**05000339**
04	17	2008	2008	-- 001 --	00	06	13	2008	FACILITY NAME	DOCUMENT NUMBER **05000**

9. OPERATING MODE

1

10. POWER LEVEL

100%

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

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (*Include Area Code*)
E. Hendrixson, Director Station Safety and Licensing	(540) 894-2108

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
E	EK	DG	F010	Y					

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (*If yes, complete 15. EXPECTED SUBMISSION DATE*) ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On March 24, 2008, with Units 1 and 2 in Mode 1 at 100% power, planned preventive maintenance commenced on the Unit 2 "H" (2H) Emergency Diesel Generator (EDG). On March 29, 2008, the 2H EDG was returned to operable. On April 1, 2008, the Unit 1 "B" SW pump was removed from service for maintenance. On April 5, 2008, excessive oil leakage was identified on the 2H EDG. The 2H EDG was declared inoperable. The oil leakage was due to 2-EG-P-4H, standby lube oil circulating pump, pushing oil to the engine upper crank line overfilling the engine upper pistons. With the 2H EDG inoperable, the Unit 2 "A" Service Water (SW) Pump was considered inoperable. Consequently, two SW pumps were inoperable for longer than the Technical Specification (TS) allowed completion time. Therefore, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by Technical Specifications. The cause for having two SW pumps inoperable greater than the allowed TS completion time was not knowing that the 2H EDG was inoperable because of the installation of the incorrect gear set on standby lube oil circulating pump 2-EG-P-4H during the maintenance outage. Maintenance activities were completed on the Unit 1 "B" SW pump and 2H EDG and the equipment was returned to operable. A PRA analysis was performed and determined that the core damage probability associated with the event was low.

1.0 DESCRIPTION OF THE EVENT

On March 24, 2008, with Units 1 and 2 in Mode 1 at 100% power, planned preventive maintenance (PM) commenced on the Unit 2 "H" (2H) Emergency Diesel Generator (EDG) (EIIS System EK, Component DG). Maintenance included, but was not limited to normal preventive maintenance, inspections of the diesel engine and electrical generator, scheduled radiator replacement, voltage regulator PMs and corrective maintenance associated with the rebuild of the standby lube oil circulating pump, 2-EG-P-4H (EIIS System LA, Component P). All maintenance was completed and an associated post-maintenance run was completed on March 29, 2008. The 2H EDG was returned to operable status.

On April 1, 2008, at 0248, the Service Water (SW) (EIIS System BI) return header was placed on full spray to verify SW throttled conditions in preparation for the Unit 1 "B" SW pump, 1-SW-P-1B, being tagged out for maintenance. On April 1, 2008, at 0300 hours, the Unit 1 "B" SW pump was removed from service for maintenance. The non-limiting action of Technical Specification (TS) 3.7.8 was entered.

On April 5, 2008, it was identified that there was excessive oil leakage coming from the exhaust system associated with the 2H EDG. Inspection identified that the excessive leakage was due to standby lube oil circulating pump, 2-EG-P-4H, pushing oil to the engine upper crank line and overfilling the engine upper pistons. It was determined that during planned maintenance activities completed on March 29, 2008, the incorrect gear set was installed in 2-EG-P-4H. On April 5, 2008, at 1314 hours, Operations personnel declared 2H EDG inoperable and entered the appropriate required action of Technical Specification (TS) 3.8.1.E. At 1714 hours, Operations personnel entered the 72 hour limiting action of TS 3.7.8.B and 3.7.8.C due to having two inoperable SW pumps. Operations personnel verified SW was throttled within one hour. These actions were entered four hours after 2H EDG was declared inoperable because 1-SW-P-1B is inoperable, therefore as required by TS 3.8.1.E, 2-SW-P-1A became inoperable.

On April 6, 2008, 1-SW-P-1B was returned to operable status. On April 9, 2008, the 2H EDG was returned to operable status.

On April 17, 2008, Engineering completed an evaluation of previous operability and determined that due to the fact that the standby lube oil circulating pump, 2-EG-P-4H, had been in service since completion of the maintenance run on March 29, 2008 with the incorrect pump internals, there was the potential for hydraulic lock of the 2H EDG beginning on March 29, 2008 following the maintenance run. Thus, the 2H EDG was conservatively considered inoperable since March 29, 2008.

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

With 1-SW-P-1B inoperable from April 1, 2008 through April 6, 2008 and 2-SW-P-1A inoperable from April 1, 2008 through April 6, 2008 coincident with its required redundant feature (1-SW-P-1B) inoperable, two SW pumps were inoperable for a duration longer than the TS allowed completion time. Therefore, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by Technical Specifications. The condition was not determined to be a reportable condition until April 17, 2008 when the Engineering evaluation on previous operability of the 2H EDG was completed.

In addition, while the 2H EDG was inoperable, the Unit 1 "H" (1H) EDG was inoperable from 1409 hours to 1426 hours on March 31, 2008 for performance of Solid State Protection System (EIIS System JE) testing. The 1H EDG was returned to operable within the 2-hour completion time of TS 3.8.1.I.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

A probabilistic risk assessment (PRA) was performed of shared equipment that may have been affected during the timeframe the 2H EDG was inoperable. The PRA analysis determined the sum totaled risk calculation for the components that were out of service during the period that the 2H EDG was unavailable. During the time period that the 2H EDG was inoperable, the 1H EDG was out of service and 1-SW-P-1B was out of service. The PRA analysis concludes the Core Damage Probability from the unavailability of the 2H EDG, concurrent with the unavailability of the 1H EDG and the 1-SW-P-1B was calculated to be 2.06 X 10-7 which is well below 10-6 CDP. The health and safety of the public were not affected at any time during the event.

3.0 CAUSE

The cause for having two SW pumps inoperable greater than the allowed TS completion time was not knowing that the 2H EDG was inoperable because of the installation of the incorrect gear set on standby lube oil circulating pump 2-EG-P-4H during the March 24 – 29, 2008 maintenance outage. The inoperability of the 2H EDG was not discovered until April 5, 2008 when excessive oil leakage was identified. Maintenance on SW pump 1-SW-P-1B had already commenced on April 1, 2008 when it was determined that the 2H EDG and associated SW pump 2-SW-P-1A had been inoperable.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

Operations personnel entered the appropriate TS required actions for the 2H EDG and SW pumps.

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

5.0 ADDITIONAL CORRECTIVE ACTIONS

Maintenance activities were completed on the Unit 1 "B" SW pump and 2H EDG and the equipment was returned to operable status.

6.0 ACTIONS TO PREVENT RECURRENCE

Corrective actions associated with the incorrect gear set being installed in the standby lube oil circulating pump are being tracked with in the Corrective Action Program.

7.0 SIMILAR EVENTS

LER 50-338, 339/2000-002-00 dated April 27, 2000, identified that two service water pumps were inoperable for a timeframe greater than the Technical Specification completion time due to inoperability of both Unit 1 EDGs.

8.0 ADDITIONAL INFORMATION

Description: Emergency Diesel Generators
Manufacturer: Fairbanks Morse
Model No.: 38TD8.125