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Energy to Serve Your WorldSM

June 20, 2008

Docket No.: 50-424

NL-08-0909

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

**Vogtle Electric Generating Plant-Unit 1
Licensee Event Report 1-2008-001
Group A Pressurizer Heaters Inoperable During Mode Change**

Ladies and Gentlemen:

In accordance with the requirements of 10CFR50.73, Southern Nuclear Operating Company hereby submits a Vogtle Electric Generating Plant licensee event report for a condition that was determined to be reportable on April 21, 2008.

This letter contains no NRC commitments. If you have any questions, please advise.

Sincerely,

A handwritten signature in black ink, appearing to read "L. M. Stinson".

L. M. Stinson
Vice President – Fleet Operations Support

TET/TMH/daj

Enclosure: LER 1-2008-001

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. T. E. Tynan, Vice President – Vogtle
Mr. D. H. Jones, Vice President – Engineering
RType: CVC7000

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. A. Jervey, NRR Project Manager – Vogtle
Mr. G. J. McCoy, Senior Resident Inspector – Vogtle

LICENSEE EVENT REPORT (LER)

Estimated burden per response to comply with this mandatory 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 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.

1. FACILITY NAME Vogtle Electric Generating Plant – Unit 1	2. DOCKET NUMBER 05000 424	3. PAGE 1 OF 5
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4. TITLE
Group A Pressurizer Heaters Inoperable During Mode Change

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
4	21	2008	2008	- 001 -	0	6	20	2008		05000
										05000

9. OPERATING MODE 3	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: <i>(Check all that apply)</i>									
10. POWER LEVEL 0%	<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 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 checked="" 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 Mark Hickox, Performance Analysis	TELEPHONE NUMBER (Include Area Code) (706) 826-4129
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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

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i> <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

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

On April 21, 2008 at 0951 EDT, Unit 1 entered Mode 3, from Mode 4, with the pressurizer heaters in Group A inoperable. Unit 1 entered Mode 3 in a condition prohibited by Technical Specification (TS) 3.0.4. The condition was identified during a pressurizer heater capacity test on April 21, 2008 at 1818 EDT, when a Maintenance electrician observed open breakers on the Group A and C heater panels. The Unit 1 Control Room was immediately notified, and Operations entered a Required Action statement for TS 3.4.9, based on inoperability of pressurizer heater Group A while in Mode 3. The heater breakers were subsequently closed within the 72-hour Required Action statement.

The primary cause of this event was inadequate work instructions to perform the necessary pressurizer heater work. The functional testing requirement to complete heater resistance measurements was not properly planned in the work order to ensure that the equipment was properly tested before being placed in service. In addition, human performance tools were not used by the individuals involved in the manipulation of the breakers when it was determined the instructions were not adequate. The supplemental electrician associated with the pressurizer heater breaker mispositioning event was unaware of the plant procedure used to document breaker manipulation.

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

A. REQUIREMENT FOR REPORT

Vogtle Electric Generating Plant (VEGP) Technical Specification (TS) LCO 3.4.9 requires two groups (Groups A and B) of pressurizer heaters to be operable in Modes 1, 2, and 3. During startup from a refueling outage, the group A pressurizer heaters were inoperable. Due to the pressurizer heater Group A being inoperable as the Unit transitioned from Mode 4 to Mode 3, the mode change restrictions of TS 3.0.4 were not met. Therefore, this event is reportable per 10 CFR 50.73(a)(2)(i)(B), based on an operation or condition prohibited by TS.

B. UNIT STATUS AT TIME OF EVENT

The breakers for the Unit 1 Group A pressurizer heaters were observed to be open on April 21, 2008 at approximately 1818 EDT. The Unit had entered Mode 3 on April 21, at 0951 EDT and was still in Mode 3 at the time the condition was identified.

C. DESCRIPTION OF EVENT

On April 21, 2008 at 0951 EDT, Unit 1 entered Mode 3, from Mode 4, with the pressurizer heaters in Group A inoperable. Unit 1 entered Mode 3 in a condition prohibited by TS 3.0.4. The condition was identified during a pressurizer heater capacity test on April 21, 2008 at 1818 EDT, when a Maintenance electrician observed open breakers on the Group A and C heater panels. The Unit 1 Control Room was immediately notified, and Operations entered a Required Action statement for TS 3.4.9 based on inoperability of pressurizer heater Group A while in Mode 3. The heater breakers were subsequently closed within the 72 hour Required Action statement.

The primary cause of this event was inadequate work instructions to perform the necessary pressurizer heater work. The functional testing requirement to complete heater resistance measurements was not properly planned in the work order to ensure that the equipment was properly tested before being placed in service. In addition, human performance tools were not used by the individuals involved in the manipulation of the breakers when it was determined the instructions were not adequate. The supplemental electrician associated with the pressurizer heater breaker mispositioning event was unaware of the plant procedure used to document breaker manipulation.

During spring 2008 refueling outage 1R14, in support of the structural weld overlay (SWOL) design change on the pressurizer surge nozzle, all of the pressurizer heater cables were de-terminated at the bottom of the pressurizer to provide access for the welding machines. Following completion of the SWOL, the pressurizer heater cables were re-terminated. Following re-termination of the pressurizer heater cables, the associated work order required that resistance measurements be taken. The work order instructions required obtaining a resistance measurement for each set of three heater elements fed by each of the two in-series breakers in the panels. The three heater elements are wired in a delta configuration. To obtain a valid resistance reading for each set of three heater elements, all of the circuits must be isolated from each other by opening at least one of the two in-series breakers in each circuit. The work order instructions did not contain

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this detail. However, the supplemental electrician, assigned to perform this work for the Groups A and C heaters, recognized the need to open the breakers. The supplemental electrician opened the breakers to obtain the resistance readings without using a procedure to document the configuration of the breakers. Upon completion of obtaining the resistance readings, the supplemental electrician failed to place the breakers back in the normal configuration of "On."

Additionally, a review of the associated work order indicates that the heater resistance measurements, requested by the work order instructions, were considered as the functional test for the heater power cable de-termination / re-termination activity. Therefore, completion of the work instructions was also considered as completion of the work activity functional test. The associated Design Change package (DCP) required a continuity check of the heater circuitry, which was enveloped by the resistance check specified in the work order, and also completion of a surveillance procedure to test pressurizer heater capacity prior to Mode 3. This surveillance procedure was not referenced anywhere in the associated work order, nor were Mode restraints issued to track completion of this activity. Since no work order or any other DCP activities were identified as a Mode restraint, Unit 1 entered Mode 3 at approximately 0951 EDT on April 21, 2008. Meanwhile, the additional work orders for testing pressurizer heater capacity were issued to Maintenance. A Maintenance electrician assigned to complete these work orders, contacted the Unit 1 Control Room, upon observing the open pressurizer heater panel breakers, at approximately 1818 EDT on the same day Unit 1 entered Mode 3. Operations then entered the Required Action statement for TS 3.4.9, based on the inoperability of pressurizer heater Group A, and subsequently closed all the breakers to restore operation.

D. CAUSE OF EVENT

There were two primary root causes identified. The first root cause identified was inadequate work order preparation. The pressurizer heater work order package was prepared by a planner with a mechanical background, who did not have adequate electrical knowledge to recognize that the panel breakers would need to be opened to obtain meaningful resistance data. The planner also did not include all of the functional testing specified by the DCP. There were no work orders created during the initial planning of the DCP that required performance of the procedure to test pressurizer heater capacity, prior to entering Mode 3. The second root cause identified was personnel error, since the supplemental electrician manipulated the pressurizer heater panel breakers and should have taken a time out to consult supervision regarding the opening of the panel breakers. There were no instructions provided to him, either written or verbal, to manipulate these breakers. The supplemental personnel involved in this event did not use the procedure to document the manipulation of the pressurizer heater breakers.

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E. ANALYSIS OF EVENT

VEGP is designed with four groups (Groups A, B, C, and D) of pressurizer heaters. All heater groups are normally fed from a non 1E source. However, heater Groups A and B have the capability to be manually loaded onto a 1E source. The pressurizer heaters function in conjunction with pressurizer spray to maintain RCS pressure at programmed limits to ensure subcooling. Additionally, during a loss of offsite power with a consequential loss of forced cooling within the RCS, the heaters maintain pressurizer pressure to enable natural circulation flow, and permit the plant to be stabilized in the hot standby condition. Only one group of pressurizer heaters is required to fulfill this function. At the time of discovery, the plant was in Mode 3 with pressurizer pressure being maintained by Groups B and D. Since pressurizer pressure was being maintained, and the Group B heaters were available from the time the plant entered Mode 3 until the condition of the Group A heaters was identified and addressed approximately 8 hours later, there was no loss of safety function as a result of this event.

F. CORRECTIVE ACTIONS

The corrective actions to preclude recurrence of this event include:

1. Supplemental personnel, currently on site, were briefed on configuration control procedures and management expectations with regard to configuration control.
2. Strengthening of the supplemental worker program to ensure supplemental workers are trained on management expectations with regard to configuration control. The estimated completion date for this corrective action is August 15, 2008.
3. Development of a training and qualification process for work planners. The estimated completion date for this corrective action is August 15, 2008.
4. Establishment of a formal procedural method for ensuring testing, specified in the design change process, is translated into an implementing document. The procedural method would require that a responsible individual approve that the implementing document satisfies the intent of the functional test as specified in the design change document. The estimated completion date for this corrective action is August 15, 2008.

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G. ADDITIONAL INFORMATION

1. Failed Components:

None

2. Previous Similar Event

None

3. Energy Industry Identification System Codes:

Reactor Coolant System (PWR)-AB
Low Voltage Power Systems (600V and less)-EC