

Tom Tynan
Vice President - Vogtle

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February 27, 2007

Docket No.: 50-425

NL-07-0441

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

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2-2007-001
RWST Sludge Mixing System Valves in a Condition Prohibited by TS

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73, Southern Nuclear Operating Company hereby submits a Vogtle Electric Generating Plant licensee event report for a condition that was determined to be reportable on January 1, 2007.

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

Sincerely,

A handwritten signature in black ink that reads "Tom E. Tynan".

Tom E. Tynan
Vice President – Vogtle
Vogtle Electric Generating Plant
7821 River Road
Waynesboro, GA 30830

TET/AGR/daj

Enclosure: LER 2-2007-001

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

U. S. Nuclear Regulatory Commission
Dr. W. D. Travers, Regional Administrator
Mr. B. K. Singal, NRR Project Manager – Vogtle
Mr. G. J. McCoy, Senior Resident Inspector – Vogtle

Enclosure

**Vogtle Electric Generating Plant – Unit 2
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LICENSEE EVENT REPORT (LER)

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

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 Vogle Electric Generating Plant – Unit 2	2. DOCKET NUMBER 05000-425	3. PAGE 1 OF 4
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4. TITLE
Sludge mixing valves was determined to be in a condition which was prohibited by TS

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER(S)
01	01	2007	2007	001	00	2	27	2007		05000
									FACILITY NAME	DOCKET NUMBER(S)
										05000

9. OPERATING MODE	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)
10. POWER LEVEL 100%	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)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

NAME Timothy Mattson, Performance Analysis	TELEPHONE NUMBER (Include Area Code) (706) 826-3216
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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

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

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

On January 1, 2007 at 1310 EDT, while at 100% power, Unit 2 Refueling Water Storage Tank (RWST) sludge mixing valves 2HV-10957 and 2HV-10958 were discovered to have been inoperable for 24 days, placing them in a condition prohibited by Technical Specification (TS). The subject valves were placed in the jack open position and tagged using a clearance to facilitate maintenance on another component. The clearance was returned to the control room, and signed off as removed. Operability was determined by stating that the tagout had been released and the LCO was exited. This determination of operability was incorrect and left the valves inoperable for 24 days.

The primary cause of this event was no procedural guidance was given to verify the valves were operable following being placed on the manual jack. A contributing factor was inadequate use of human performance tools. The operator removing the clearance and the independent verifier did not have a clear understanding of how the jack worked for these valves and made an incorrect assumption of how these valves operated. Other contributing causes included the pre-job brief was not held prior to the release of the tagout, and the discussion about the valves in the clearance concerning their current position or the required position had little detail and was unclear to the operators.

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

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(i)(B), any operation or condition which was prohibited by Technical Specifications (TS). TS LCO 3.5.4 requires these valves to automatically close on an Refueling Water Storage Tank (RWST) low-level signal, and the valves were incapable of closing.

B. UNIT STATUS AT TIME OF EVENT

The RWST sludge mixing valves were determined to have been in a condition prohibited by TS on January 1, 2007 at 1310 EDT. At the time of the event, Unit 2 was at 100% power.

C. DESCRIPTION OF EVENT

Unit 2 RWST sludge mixing valves 2HV-10957 and 2HV-10958 were placed in the jack open position and tagged using a clearance to help facilitate maintenance on another component. After maintenance was completed, the tagout was released and operations performed an independent verification on the valves.

The first operator did not fully understand the term "Available Ensure Off the Jack" as stated on the clearance release sheet. The operator assumed that this meant the hand wheel on the valve needed to be full up. Also, he was not aware that the jacks on these valves hold them open.

When the second operator independently verified the position of the valves, he made the same assumption as the first operator. He turned the hand wheel to the closed position to verify the valve was open and then returned the hand wheel to full open. The clearance was returned to the control room, and signed off as removed. Operability was determined by stating that the tagout had been released and LCO 2-2006-157 was exited. This determination of operability was incorrect and left the valves inoperable for 24 days. On January 1, 2007 surveillance 14825-2 was attempted and valves 2HV-10957 and 2HV-10958 did not stroke. This is when the valves were discovered jacked open, and were removed from the jack returning them to operable status.

D. CAUSE OF EVENT

The primary cause of this event was no procedural guidance was given to verify the valves were operable following the valves being placed on the jack.

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

E. ANALYSIS OF EVENT

Per TS 3.5.4, the RWST sludge mixing isolation valves are required to automatically close on an RWST low-level signal. The contents of the RWST are protected from freezing by a sludge mixing system which includes an electric circulation heater. However, the sludge mixing pump and the electric circulation heater connected to the tank are not safety grade or seismically qualified. Therefore, an isolation capability is provided to prevent loss of the RWST water volume. Two train-oriented, air operated, seismically qualified valves mounted in series are provided on the suction line to the sludge mixing pump. These are the valves that were inoperable for longer than allowed by the TS. Had a seismic event occurred during this time, the non-seismic portion of this line could have broken causing a loss of RWST inventory. Operators would have been made aware of this loss of inventory by the RWST low-level alarm. In addition, the engineering evaluation determined that at least an hour would have been available following the RWST low-level alarm for operator action to identify the loss of inventory and isolate the broken line.

If a design basis event requiring safety injection had occurred at the same time that the seismic event occurred, adequate inventory would have been available in the RWST so that the injection function of the Emergency Core Cooling System (ECCS) could have been accomplished as determined by an engineering evaluation using design pump flows without operator intervention. Therefore, the injection function of the ECCS would have been maintained.

No event occurred requiring the RWST ECCS injection function during the time that the valves were inoperable. There was no adverse effect on the health and safety of the public.

F. CORRECTIVE ACTIONS

1. The "Conduct of Operations" procedure was revised to include operability requirements for Safety Related Air-Operated Valves (AOVs) placed on the jack to defeat the fail safe operation. That is, the valve should be stroked using remote service prior to declaring it operable.
2. The Operations Manager has covered this and other mispositioning events in Requalification Training, emphasizing the use of HU tools and the importance of making sure the plant is in a normal alignment to ensure safe reliable operation of the plant.
3. Lessons learned regarding this event were included in Licensed Operator and Non-licensed Operator continuing training with an emphasis on the operation of various AOVs that can be placed on the jack, the purpose of the jack, and how to restore valves from the "jacked" position.

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

4. "Operation of valves with Jacks" will be included as part of the Initial and Continuing core tasks for licensed and non-licensed operators. Estimated to be included by May 23, 2007.

G. ADDITIONAL INFORMATION

None

2) Failed Components:

None

3) Previous Similar Events:

None

4) Energy Industry Identification System Codes:

Chemical and Volume Control Makeup and Purification System – CB

High Pressure Safety Injection System - BQ

Residual Heat Removal / Low Pressure Safety Injection System – BP

Containment Spray System - BE