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December 18, 2006

Docket No.: 50-424

NL-06-2873

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

Vogtle Electric Generating Plant – Unit 1
Licensee Event Report 1-2006-004
ECCS Accumulator #1 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 October 28, 2006.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Don E. Grissette", written over a white background.

Don E. Grissette

DEG/LPH/daj

Enclosure: LER 1-2006-004

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. T. E. Tynan, General Manager – Plant Vogtle
RType: CVC7000

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

Enclosure

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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 Vogtle Electric Generating Plant – Unit 1	2. DOCKET NUMBER 05000-424	3. PAGE 1 OF 4
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4. TITLE
ECCS Accumulator #1 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)
10	28	2006	2006	004	00	12	18	2006		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)			
3	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)
10. POWER LEVEL	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)	X 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME Amy Whaley, Performance Analysis	TELEPHONE NUMBER (Include Area Code) (706) 826-3858
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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 October 28, 2006 at 0726 EDT, while in Mode 3 with Emergency Core Cooling System (ECCS) Accumulators required to be operable, Accumulator #1 was in a condition prohibited by Technical Specification (TS). The accumulator had been overfilled prior to entering Mode 3 due to the use of invalid level indication during the fill process. This overfill condition was not identified prior to being in Mode 3 with Accumulators required to be operable; therefore, Accumulator #1 was rendered inoperable per TS 3.5.1, which states that four ECCS Accumulators are required to be operable in Modes 1 and 2, and in Mode 3 with pressurizer pressure above 1000 psi. If one Accumulator is inoperable, action must be taken to restore the Accumulator to operable status within 24 hours. If the Accumulator can not be restored to operable status, the Unit has to be depressurized to less than or equal to 1000 psi within 12 hours. On October 28, 2006 at 0334 hours, Accumulator #1 was declared inoperable. Unit 1 was depressurized to below 1000 psi on October 28, 2006 at 1430 EDT.

The primary cause of this event was inadequate identification of inoperable equipment on the main control board which led the operator to use inaccurate level indication to fill the accumulator. Accumulator #1 level instruments were replaced and properly calibrated, and controls have been established to require identification of unavailable/inoperable components on the main control board. Formal Shift Briefings, as prescribed by plant procedure, have been held for each operating crew summarizing this event, the actions taken, expectations, and the location of control documents to prevent reoccurrence.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Vogtle Electric Generating Plant - Unit 1	05000-424	2006	-- 004 --	00	2 OF 4

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), and 10 CFR 50.73 (a)(2)(v)(D), any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident.

B. UNIT STATUS AT TIME OF EVENT

The Emergency Core Cooling System (ECCS) Accumulator #1 was determined to have been in a condition prohibited by TS on October 28, 2006 at 0726 EDT. At the time of the event, Unit 1 was in Mode 3 and greater than 1000 psi.

C. DESCRIPTION OF EVENT

The ECCS Accumulators were drained for the 1R13 refueling outage. During the Accumulator #1 fill process on October 20, 2006 while the unit was in Mode 4, an Accumulator pressure increase was noticed by the operators. The accumulator is equipped with two level indicators, 1LI-0950 and 1LI-0951. 1LI-0950 was being used with a Temporary Modification (TM) for ultrasonic midloop level indication during vacuum refill and had a TM tag on the main control board indication to alert the operators that this instrument was not reading Accumulator #1 level. 1LI-0951 was tagged out with its reference leg drained to allow for valve maintenance, but there was no indication in place on the main control board to alert the operators that the reading from this instrument was unavailable for use. The accumulator was filled using 1LI-0951 for level indication. During the filling process, control room staff noted a pressure surge in accumulator #1, and filling was terminated even though level indication was still off scale low. Upon inquiry, control room staff discovered that 1LI-0951 was unavailable due to the reference leg being drained for maintenance. Given the fact that level indication was unavailable coupled with the pressure surge, a recommendation was made to drain accumulator #1 when reliable level indication was available.

When both 1LI-0950 and 1LI-0951 were returned to service, their indication was erratic, off scale high, and trends were inconsistent between the two. After maintenance and calibration, the control room staff concluded that 1LI-0950 was providing reliable indication and that accumulator #1 level was within TS limits. On October 26, 2006, at 1624, Unit 1 entered Mode 3, and at 1926 on the same day, RCS pressure was increased to above 1000 psig, entering the Applicability of TS LCO 3.5.1. Later that night, 1LI-0951 was replaced and returned to service.

Early the following morning on October 27, 2006, both accumulator #1 level indications began to drift and indicate erratically. On October 28, 2006, at 0334 accumulator # 1 was declared inoperable, and subsequently at 1430 Unit 1 was depressurized to below 1000 psig because level indication could not be restored. At this time, the decision was made to drain the accumulator to positively confirm actual accumulator level. Draining commenced, and after almost two hours both level indicators began to track consistently and it was determined that the water level in the Accumulator had finally dropped below the upper level instrument tap. At this point it was evident that the accumulator had indeed been overfilled since the initial fill on October 20, 2006.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Vogtle Electric Generating Plant - Unit 1	05000-424	2006	-- 004 --	00	3 OF 4

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

Draining was stopped, a decision was made to replace 1LI-0950, the instruments were recalibrated and level indication for both instruments was within 1%. Therefore, based on a review of control room logs, accumulator #1 had been inoperable since RCS pressure was raised to above 1000 psig on October 26, 2006 at 1926. The elapsed time that the unit was within the Applicability of TS LCO 3.5.1 with accumulator #1 inoperable was 43 hours and 4 minutes which is greater than the 36 hours allowed by TS LCO 3.5.1

D. CAUSE OF EVENT

The primary cause of this event was inadequate identification of inoperable equipment on the main control board which led the operator to use inaccurate level indicators to fill the accumulator.

E. ANALYSIS OF EVENT

Per TS 3.5.1, four ECCS Accumulators are required to be operable with pressurizer pressure above 1000 psi and in Modes 1, 2, and 3. If one accumulator is inoperable for any reason other than boron concentration not within limits, action must be taken to restore the Accumulator to operable status within 24 hours. ECCS Accumulator #1 was inoperable for longer than allowed by TS with pressurizer pressure greater than 1000 psi. The minimum condition required to ensure that the accumulators are available to accomplish their core cooling safety function following a LOCA includes four operable accumulators. Four accumulators are required to ensure that 100% of the contents of three accumulators will reach the core during a LOCA. This is consistent with the assumption that the contents of one accumulator will be lost through the RCS pipe break during the blowdown phase of the LOCA. If less than three accumulators are injected during the blowdown phase of a LOCA, the ECCS acceptance criteria of 10 CFR 50.46 could be violated. Since one accumulator was inoperable for longer than allowed by TS, this represents a Safety System Functional Failure, since three accumulators are required to partially cover the core before significant clad melting or zirconium water reaction can occur following a LOCA. However, no event occurred while ECCS Accumulator #1 was inoperable that would have challenged the ability of the ECCS Accumulators to perform their safety related function. Therefore, there was no adverse impact to the health and safety of the public.

F. CORRECTIVE ACTIONS

1. Accumulator #1 level instruments (1LI-0951 and 1LI-0950) were replaced and properly calibrated. This action has been completed.
2. Operations management set the expectations for alerting operators of indications unavailable on the main control board when associated instruments are tagged out for maintenance. This was accomplished by revising the written guidelines utilized for clearance preparation. This action has been completed.
3. Briefings on the new expectations for alerting operators of unavailable indications on the main control board when associated instruments are tagged out for maintenance has been completed with individuals

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Vogtle Electric Generating Plant - Unit 1	05000-424	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		2006	-- 004	-- 00	

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

preparing clearances and the shift managers. Formal Shift Briefings, as prescribed by plant procedure, have been held for each operating crew summarizing this event, the actions taken, the location of control documents to prevent reoccurrence and the Operation's Management expectations. This action has been completed.

4. The "Equipment Clearance and Tagging" procedure will be revised to require identification of components on the control board that are not available to alert the operators. Estimated completion is January 26, 2007.

G. ADDITIONAL INFORMATION

- 1) The Training department will incorporate this event into the training programs for licensed operators, maintenance and engineering personnel.
- 2) Failed Components:
None
- 3) Previous Similar Events:
None
- 4) Energy Industry Identification System Codes:
Reactor Coolant System - AB