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C. K. McCoy
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Vogtle Project

November 20, 1995



LCV-0701

Docket No. 50-424

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

Ladies and Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
LICENSEE EVENT REPORT 1-95-6
MAXIMUM REACTOR POWER EXCEEDED OVER AN 8 HOUR PERIOD

In accordance with the requirements of Vogtle Electric Generating Plant Unit 1 Facility Operating License No. NPF-6, Section 2.H, Georgia Power Company (GPC) hereby submits the enclosed report associated with a violation of operating license condition Section 2.C(1). The violation occurred on October 31, 1995, when Unit 1 reactor core power level rose to 3566 megawatts thermal, or approximately 100.03 percent averaged over an 8 hour period. This exceeded the maximum operating power limit and was discovered on November 1, 1995.

Sincerely,

C.K. McCoy
C. K. McCoy

CKM/TEW

Enclosure: LER 1-95-06

cc: Georgia Power Company
Mr. J. B. Beasley, Jr.
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. L. L. Wheeler, Licensing Project Manager, NRR
Mr. C. R. Ogle, Senior Resident Inspector, Vogtle

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NRC FORM 366 (4-95)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED OMB NO. 3150-0104 EXPIRES: 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REQUIRED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.					
LICENSEE EVENT REPORT (LER)										
FACILITY NAME (1) Vogtle Electric Generating Plant - Unit 1					DOCKET NUMBER (2) 500004241		PAGE (3) OF 4			
TITLE (4) MAXIMUM REACTOR POWER EXCEEDED OVER AN 8 HOUR PERIOD had 241										
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER(S)
11	01	95	95	006	00	11	12	09		05000111
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)							
POWER LEVEL (10) 100			20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(vii)	
			20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(v)	
			20.2203(a)(2)(i)		20.2033(v)(3)(ii)		50.73(a)(2)(iii)		73.71	
			20.2203(a)(2)(ii)		20.2033(c)(1)		50.73(a)(2)(iv)		<input checked="" type="checkbox"/> OTHER (Specify in Abstract below or in NRC Form 366A) License Violation	
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)			
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vi)			
LICENSEE CONTACT FOR THIS LER (12)										
NAME Mehdi Sheibani, Nuclear Safety and Compliance								TELEPHONE NUMBER (include area code)		
								AREA CODE 706 826-3209		
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
SUPPLEMENTAL REPORT EXPECTED (14)								EXPECTED SUBMISSION DATE (15)		
YES (If yes, complete EXPECTED SUBMISSION DATE)								X NO		
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-space typewritten lines) (16) <p>On October 30, 1995, the excess letdown flowpath was placed into service and the normal letdown flowpath was removed from service for maintenance. On November 1, 1995, it was determined that the unit had operated in excess of its maximum allowed reactor power level because heat losses associated with the use of the excess letdown flowpath had not been accounted for in the plant computer's calorimetric equation for determining reactor power level. The operation of the unit at an average of 3566 megawatts thermal (MW(t)) over an 8-hour period was 1 MW(t) over the maximum allowed by the unit operating license.</p> <p>The cause of this event was an oversight in the original validation of the computer calorimetric software in identifying the limitations of the software program. Operating procedures have been changed to reflect the impact on the calorimetric equation that occurs when placing the excess letdown flowpath into service, and appropriate engineering, operations and work planning personnel will review the lessons learned from this event.</p>										

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1) Vogtle Electric Generating Plant - Unit 1	DOCKET NUMBER (2) 05000424	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL YEAR	REVISION NUMBER			
		95	- 006	- 00	2	OF	4

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

A. REQUIREMENT FOR REPORT

This report is required per the Vogtle Electric Generating Plant Unit 1 Facility Operating License No. NPF-68, Section 2.H, which states that violations of Section 2.C of the license are reportable by both 24-hour notification and a 30-day report. Section 2.C(1) stipulates that the licensee shall not operate with reactor core power levels in excess of 3565 megawatts thermal (MW(t)). On October 31, 1995, the reactor core power level rose to 3566 MW(t), or approximately 100.03 percent averaged over an 8 hour period.

B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 1 had been operating at 100 percent of rated thermal power. Other than that described herein, there was no inoperable equipment that contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

The letdown heat exchanger (LDHX) in the chemical volume and control system (CVCS) is utilized to lower the temperature of reactor coolant system (RCS) fluid that comes from the regenerative heat exchanger. The LDHX was found to have a small leak and an outage was planned to open the heat exchanger and make repairs as needed to correct the leak. On October 30, 1995, the LDHX outage began and personnel placed the excess letdown flowpath into service and removed the LDHX from service. On October 31, 1995, the performance engineering supervisor (PES) reviewing the unit heat rates noticed that the values were lower than expected. Upon investigation, the PES found that the RCS heat losses associated with the use of the excess letdown flowpath were not being accounted for in the plant computer's calorimetric equation used to determine reactor thermal power. The normal letdown flow is automatically measured and input into the calorimetric equation. However, the excess letdown line is not instrumented for flow and does not input into the equation for determining reactor thermal power. Therefore, heat losses associated with the use of the excess letdown line were not accounted for. The PES reported this condition to the unit shift supervisor (USS) at 1615 EST and estimated the effect to be approximately 3 MW(t). The PES was requested to perform a detailed calculation of the effect on the calorimetric. The detailed calculation indicated the actual reactor thermal power to be approximately 2 MW(t) higher than that shown by the calorimetric equation. Following review of the calculation by operations, engineering and management personnel, reactor power was reduced by approximately 3 MW(t) at 1710 EST, on October 31, 1995.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
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TEXT (If more space is required, use additional copies of NRC Form 366A)(17)

On November 1, 1995, at approximately 1300 EST, the PES completed a review of corrected hourly reactor power levels. This review found that the corrected reactor power's 8-hour rolling average, from approximately 9 AM to 5 PM on October 31, 1995, was 3566 MW(t). Since section 2.C(1) of Operating License NPF-68 stipulates that the licensee shall not operate with reactor core power levels in excess of 3565 MW(t), the operation at 3566 MW(t) represented a violation of an operating license requirement. The NRC Operations Center was notified of this event on November 1, 1995, at 1540 EST.

D. CAUSE OF EVENT

The cause of this event was an oversight in the original validation of the computer calorimetric software in identifying the limitations of the software program. This resulted in a failure of the operating procedures to take into account the system realignment's affect on the reactor power limiting parameter (calorimetric equation).

E. ANALYSIS OF EVENT

If reactor power rises to 109 percent, an automatic reactor trip occurs from power range neutron detectors. However, the 1 MW(t) excess in reactor power operation represents a negligible (0.03 percent) increase over the licensed maximum power level and is not distinguishable by the neutron detectors. Based on this consideration, there was no adverse affect to plant safety or to the health and safety of the public as a result of this event.

F. CORRECTIVE ACTIONS

- 1) Operating procedures have been changed to reflect the impact on the calorimetric equation that occurs when placing excess letdown into service.
- 2) By November 30, 1995, different system alignments will be reviewed for their possible affect on the calculation of the calorimetric equation. Followup actions will be taken as necessary.

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G. ADDITIONAL INFORMATION

- 1) Failed Components:
None
- 2) Previous Similar Events:
None
- 3) Energy Industry Identification System Code:
Reactor Coolant System - AB
Chemical Volume and Control System - CB
Integrated Plant Computer System - ID