

Georgia Power Company
40 Inverness Center Parkway
First Office Box 1295
Birmingham, Alabama 35201
Telephone 205 877-7278

J. T. Beckham, Jr.
Vice President—Nuclear
Hatch Project



Georgia Power

The Southern electric system

HL-2243
003501

May 29, 1992

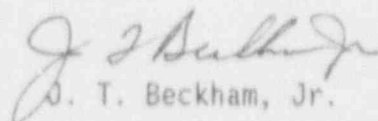
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNIT 1
NRC DOCKET 50-321
OPERATING LICENSE DPR-57
LICENSEE EVENT REPORT
INADEQUATE PROCEDURE RESULTS IN
TECHNICAL SPECIFICATIONS NON-COMPLIANCE

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning an inadequate procedure which resulted in a Technical Specifications non-compliance. This event occurred at Plant Hatch - Unit 1.

Sincerely,


J. T. Beckham, Jr.

OCV/cr

Enclosure: LER 50-321/1992-011

cc: Georgia Power Company
Mr. H. I. Sumner, General Manager - Nuclear Plant
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebnetter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

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LICENSEE EVENT REPORT (LER)

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TITLE (4) **INADEQUATE PROCEDURE RESULTS IN TECHNICAL SPECIFICATIONS NON-COMPLIANCE**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ NUM	REV	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
05	07	92	92	011	00	05	29	92		05000
										05000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)										
OPERATING MODE (9)	1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)					
POWER LEVEL	100	20.405(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(c)					
		20.405(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in					
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Abstract below)					
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)						
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
STEVEN B. TIPPS, MANAGER NUCLEAR SAFETY AND COMPLIANCE, HATCH	912 367-7851

COMPLETE ONE LINE FOR EACH FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRPDS

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (16)

On 5/7/92 at 0700 CDT, Unit 1 was in the Run mode at a power level of 2436 CMWT (100% rated thermal power). At that time, licensed Operations personnel performing a routine panel walkdown found the control switch for Excess Flow Check Valve (EFCV) 1B21-F051C in the open position. This rendered the EFCV inoperable, i.e., incapable of stopping flow in the event of a break in its instrument line. The switch was immediately returned to the auto position which returned the EFCV to operable status. Investigation revealed that the control switch had been placed in the open position at approximately 1230 CDT on 5/6/92 during the monthly performance of procedure 64CH-SAM-007-0S, "Automated Sampling/In-Line Analyses of Reactor Coolant and Containment Atmosphere." Consequently, the EFCV had been inoperable for about 18 1/2 hours before its control switch was returned to the proper position. This was contrary to the requirements of Unit 1 Technical Specifications sections 3.7.D.1 and 3.7.D.2 which require that all EFCVs be operable or another isolation valve in the same line be closed.

The cause of this event was an inadequate procedure. Procedure 64CH-SAM-007-0S contained a step to place the control switch for EFCV 1B21-F051C to the open position so that flow could be established to the Post-Accident Sampling System, but did not contain a step to return it to the proper (auto) position once required flow was attained.

Corrective actions for this event include placing clearance tags on the control switches for EFCVs 1B21-F051C and 2B21-F051C and revising procedure 64CH-SAM-007-0S.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor
Energy Industry Identification System codes are identified in the text as (EIIIS Code XX).

DESCRIPTION OF EVENT

On 5/7/92 at 0700 CDT, Unit 1 was in the Run mode at a power level of 2436 CMWT (100% rated thermal power). At that time, licensed Operations personnel performing a routine panel walkdown found the control switch for Excess Flow Check Valve (EFCV, EIIIS Code JM) 1B21-F051C in the open position. This valve is in the one-inch line to the flow transmitter for Jet Pump 20. In the event of a break in the line, the EFCV will close due to the high flow condition, isolating the break and limiting leakage of reactor coolant into the secondary containment. An isolated EFCV can be opened by equalizing pressure across the valve's seat. This is done by opening a small, internal, electrically operated bypass valve which allows the process fluid to bypass the closed EFCV seat and pressurize the downstream side of the seat. Spring force then opens the EFCV. All EFCVs have the capability of being bypassed by use of a push-button in the main control room. In the case of EFCV 1B21-F051C, the internal bypass line can also be opened by placing the valve's control switch to the open position.

With the control switch for EFCV 1B21-F051C in the open position, the EFCV was not capable of performing its intended function; reactor coolant would flow past the EFCV through the bypass line even if the valve seat closed. This is contrary to the requirements of Unit 1 Technical Specifications sections 3.7.D.1 and 3.7.D.2 which require that the EFCV be operable or another valve in the same line be isolated. When the condition was discovered, the control switch was immediately returned to the auto position which closed the internal bypass line and restored the EFCV to operable status. This action placed the plant in compliance with the above listed Technical Specifications; therefore, no Limiting Conditions for Operation were entered.

Investigation revealed that the control switch had been placed in the open position at approximately 1230 CDT on 5/6/92 during the monthly performance of procedure 64CH-SAM-007-OS, "Automated Sampling/In-Line Analyses of Reactor Coolant and Containment Atmosphere." This procedure provides instructions for operating the Post-Accident Sampling System (PASS, EIIIS Code IP), a system designed to obtain and analyze a reactor coolant sample following an accident. The reactor coolant sample inlet line to the PASS taps off the one-inch instrument line for a jet pump flow transmitter. The tap off point is downstream of EFCV 1B21-F051C. The system is operated monthly to verify it is functional.

Prior to placing the PASS into service (it is a normally isolated system), the system pressure will be significantly less than reactor coolant pressure. Consequently, a large differential pressure will exist across the EFCV and it will close per its design when the PASS is first put into service before

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required system flow and pressure are established. Thus, procedure 64CH-SAM-007-0S contains a step to place the control switch for EFCV 1B21-F051C to the open position so that flow and pressure can be established to the PASS by allowing reactor coolant to flow through the EFCV's internal bypass line to the system. This also allows the EFCV to re-... so system pressure and flow can be maintained once the bypass line is closed.

However, procedure 64CH-SAM-007-0S does not contain a step to place the control switch for EFCV 1B21-F051C to the auto position after PASS flow and pressure reach their required values. As a result, the switch was not returned to its proper (auto) position following completion of the procedure and the EFCV's internal bypass line remained open. The EFCV was therefore inoperable. The switch was found to be in the incorrect position on 5/7/92 at 0700 CDT, 18 1/2 hours from the estimated time it was placed in the open position. At that time, it was returned to its proper position thereby closing the bypass line and restoring the EFCV to operable status.

CAUSE OF THE EVENT

The cause of this event was an inadequate procedure. Procedure 64CH-SAM-007-0S contained a step to place the control switch for EFCV 1B21-F051C to the open position so that flow and pressure could be established to the PASS, but did not contain a step requiring the switch to be returned to its proper (auto) position once the required flow and pressure were attained.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This event is reportable per the requirements of 10 CFR 50.73(a)(2)(i) because a condition existed which was prohibited by the plant's Technical Specifications. Specifically, an EFCV was inoperable for about 18 1/2 hours because its control switch was in the open position. This was contrary to the requirements of Unit 1 Technical Specifications sections 3.7.D.1 and 3.7.D.2 which require that the EFCV be operable or another valve in the same line be isolated.

Instrument lines which penetrate the primary containment and form a part of the reactor coolant pressure boundary contain a 1/4-inch flow restricting orifice. The orifice is located as close as is feasible to the reactor pressure vessel and is sized to limit the discharge from a downstream break to within the capacity of the Standby Gas Treatment System (EHS Code BH). Outside of the primary containment, the instrument lines are provided with a manually operated root valve followed by an EFCV. Both valves are located as close as possible to the primary containment. Should a break occur downstream of the EFCV, the valve closes to isolate the broken line as the flow rate in the line reaches two gallons per minute. Once the condition which caused the EFCV to close is corrected, the valve may be opened by use of the remotely operated internal bypass.

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In this event, the internal bypass for EFCV 1B21-F051C was open for a period of 18 1/2 hours during which time the EFCV would have been prevented from performing its design isolation function. An instrument line break downstream of this EFCV would not have been isolated. However, this is an analyzed event addressed in the Hatch Unit 2 Final Safety Analysis Report (FSAR). The FSAR analysis shows that an unisolated break of an instrument line would not result in an offsite exposure exceeding 10 CFR 100 limits.

The aforementioned analysis assumed a circumferential rupture of an instrument line which is connected to the reactor coolant pressure boundary. The rupture was postulated to occur in that portion of the line outside the primary containment but upstream of the EFCV. The reactor was assumed to be operating at 100% rated thermal power. The postulated failure results in reactor coolant being released to the secondary containment until the reactor is depressurized. It was assumed that the break will be discovered within 12 minutes of occurrence and the reactor subsequently depressurized within the next four hours. During this time, the 1/4-inch flow restricting orifice in the instrument line limits the mass of steam and water released from the break. The resultant total-body gamma dose due to immersion from direct radiation and the thyroid dose due to inhalation for the two hour exposure period at the exclusion area boundary and for the duration of the accident at the low population zone outer boundary were well within 10 CFR 100 limits. In fact, the highest calculated dose was less than 0.2 Rem (thyroid dose at the low population zone outer boundary).

This event is enveloped by the above analysis because a break downstream of the inoperable EFCV is equivalent to a break between the primary containment and the EFCV. Furthermore, a postulated break downstream of the inoperable EFCV could have been isolated simply by returning its control switch to the auto position. With depressurization of the reactor not required to stop the release of reactor coolant, the severity of this event would be significantly less than the analyzed failure. Therefore, it is concluded that this event had no adverse impact on nuclear safety or the health and safety of the public.

CORRECTIVE ACTIONS

On 5/7/92, as an interim action, Clearances 1-92-539 and 2-92-381 were issued on the control switches for EFCVs 1B21-F051C and 2B21-F051C, respectively, administratively preventing them from being moved from the auto position. (These are the only two EFCVs with control switches which can be left in the open position. All other EFCVs have push-buttons which spring return to the closed position when released.) The clearances will remain in place until procedure 64CH-SAM-007-0S can be revised.

Procedure 64CH-SAM-007-0S will be revised to add a step to require that the control switches for EFCVs 1B21-F051C and 2B21-F051C be returned to the auto position and independently verified after the required PASS flow and pressure are established. A caution will also be added to the procedure informing personnel that placing the switch in the open position renders these EFCVs inoperable and that appropriate Technical Specifications action statements must be entered while the switch is in the open position.

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ADDITIONAL INFORMATION

No systems other than those mentioned in this report were affected by this event.

No failed components caused or resulted from this event.

Previous similar events in the last two years in which an inadequate procedure resulted in the plant being in a condition prohibited by the Technical Specifications were reported in the following Licensee Event Reports:

- 50-321/1990-009, dated 6/15/90,
- 50-321/1990-019, dated 10/23/90,
- 50-321/1990-023, dated 1/9/90,
- 50-321/1991-008, dated 4/19/91,
- 50-321/1991-011, dated 7/9/91,
- 50-321/1991-012, dated 7/17/91,
- 50-321/1991-024, dated 11/12/91,
- 50-321/1991-025, dated 11/22/91.

Corrective actions for these previous events would not have prevented this event because the previous events involved different procedures. Moreover, the Company believes that no administrative changes in procedure processing are necessary to assure that Technical Specifications are correctly implemented. Corrections will continue to be incorporated into procedures when they are found necessary.