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HL-2926
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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
LICENSEE EVENT REPORT
SPURIOUS ACTUATIONS OF
ENGINEERED SAFETY FEATURES

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(iv), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning spurious actuations of Engineered Safety Features. This event occurred at Plant Hatch - Units 1 and 2.

Sincerely,

J. T. Beckham, Jr.

OCV/cr

Enclosure: LER 50-321/1992-022

cc: Georgia Power Company
Mr. H. L. 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. Ebner, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) PLANT HATCH, UNIT 1										DOCKET NUMBER (2) 05000321		PAGE (3) 1 OF 4	
TITLE (4) SPURIOUS ACTUATIONS OF ENGINEERED SAFETY FEATURES													
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MONTH	DAY	YEAR	YEAR	SEC NUM	REV	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)		
									PLANT HATCH, UNIT 2		05000366		
08	27	92	92	022	00	09	25	92			050000		
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)											
3		20.402(b)				20.405(c)				X 50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL		000				20.405(a)(1)(i)				50.73(a)(2)(v)		73.71(c)	
		20.405(a)(2)(iii)				50.36(c)(2)				50.73(a)(2)(vi)		OTHER (Specify in Abstract below)	
		20.405(a)(3)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)			
		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)(ix)			
LICENSEE CONTACT FOR THIS LER (12)													
NAME										TELEPHONE NUMBER			
STEVEN B. TIPPS, MANAGER NUCLEAR SAFETY AND COMPLIANCE, HATCH										AREA CODE		367-7851	
912													
COMPLETE ONE LINE FOR EACH FAILURE DESCRIBED IN THIS REPORT (13)													
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC			
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH DAY YEAR	
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO			

ABSTRACT (16)

On 08/27/92 at 2000 CDT, Unit 1 was in Hot Shutdown following a scram which occurred earlier that day. Unit 2 was in the Run mode at a power level of approximately 1800 CMWT (75 percent rated thermal power) during end-of-cycle coastdown. At that time the "A" trains of the Unit 1 and Unit 2 Standby Gas Treatment (SGT) systems received an automatic initiation signal. The Unit 1 SGT system automatically started and the portions of the Unit 1 reactor building and refueling floor ventilation systems which are controlled by the "A" logic channels isolated per design. The Unit 1 Fission Product Monitoring (FPM) system also isolated. The Unit 2 Primary Containment was being purged via the Unit 2 SGT system. Therefore, a signal to start the Unit 2 SGT system was received, but no equipment actuations occurred. Licensed operations personnel on both units left the SGT systems running for several hours while a technician investigated the cause of the event. When no cause for the initiation could be found, the Unit 1 FPM system was returned to service; the SGT systems on both units were secured; and operation of the normal ventilation systems was resumed on both units by 0047 CDT on 08/28/92.

The cause of this event could not be determined. Investigation was pursued by a technician immediately after the event occurred, but the source of the initiation signal had already cleared and therefore, could not be traced. Engineering review of involved logic systems also failed to disclose the source of the initiation signal or the cause of the event.

Corrective actions for this event included returning the affected systems to their normal lineup.

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TEXT

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 08/27/92 at 2000 CDT, Unit 1 was in Hot Shutdown following a scram which had occurred earlier on the same day. Unit 2 was in the Run mode at a power level of approximately 1800 CMWt (75 percent rated thermal power) during end-of-cycle coastdown. At that time the "A" trains of the Unit 1 and Unit 2 Standby Gas Treatment (SGT, EIIIS Code BH) systems received an automatic initiation signal. The "A" train of the SGT system on Unit 1 started and the portions of the reactor building and refueling floor ventilation systems (EIIIS Code VA) which are controlled by the "A" channels of the logic systems isolated per design. Two of the inlet valves and one of the outlet valves on the Unit 1 Fission Product Monitoring (FPM, EIIIS Code IJ) system also received automatic isolation signals, and they responded by closing per design. The "A" train of the Unit 2 SGT system also received an automatic initiation signal. However, at the time of the event, licensed personnel were venting the Unit 2 Primary Containment (EIIIS Code NH) via the SGT system. Therefore, the Unit 2 SGT system was already in operation when the automatic start signal was received; no equipment actuations occurred on Unit 2. The only indication received on Unit 2 was the annunciator for the SGT system automatic start signal.

Since Unit 1 was shut down, most of the valves which are normally required to isolate in conjunction with an SGT system initiation were already closed. Therefore, no system isolations occurred on Unit 1 other than the ones involving the ventilation system and the FPM system.

Licensed operations personnel elected to leave both units' SGT systems in operation and the Unit 1 ventilation and FPM systems isolated while an Instrument and Control foreman performed troubleshooting on the affected logic systems. Troubleshooting failed to identify the source of the initiation signal, however, because the trip signal had already cleared. The only portions of the logic which remained in the tripped state were those portions which are designed to seal in and require manual action to reset.

By approximately 2200 CDT, the Instrument and Control foreman had determined that locating the source of the initiation signal would not be possible. Subsequently, the affected logic systems were reset; the SGT systems were secured; and the Unit 1 FPM system was returned to service. All the affected systems reset normally and were returned to service without incident by 0040 CDT on 08/28/92.

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CAUSE OF EVENT

The cause of the event could not be determined. An Instrument and Control foreman conducted an extensive troubleshooting of the affected logic systems. Additionally, the affected logic systems received extensive engineering review in an attempt to identify the most probable source of the trip signal.

REPORTABILITY ASSESSMENT AND SAFETY ANALYSIS

This event is reportable per 10 CFR 50.73 (a)(2)(iv) because unplanned, automatic actuations of Engineered Safety Features (ESFs) occurred. Specifically, the "A" trains of the SGT systems on both units received initiation signals; the Unit 1 reactor building and refueling floor ventilation systems controlled by the "A" logic isolated; and the Unit 1 FPM system isolated.

The SGT systems are designed to limit the release of radioactivity to the environment following leakage of radioactivity into the Secondary Containment (EIIIS Code NC). The SGT systems automatically filter the air from the Secondary Containment following an accident and discharge it via the Main Stack (EIIIS Code VL). Each unit's SGT system consists of two identical, redundant, 100 percent capacity air filtration trains containing the necessary heaters, filters and exhaust fans. When an SGT system initiation signal is received, the normal building ventilation systems automatically isolate to allow the SGT system to maintain a negative pressure in the reactor building and on the refueling floor, preventing unfiltered air from leaking into the atmosphere.

The Fission Product Monitoring system is designed to provide continuous monitoring of the Primary Containment atmosphere during reactor operation as well as during periods when the reactor is shut down and personnel entry into the drywell may be required. The system provides an alarm in the Main Control Room if preset radiation levels are exceeded or if an instrument failure occurs. Per design, a small flow of containment atmosphere is established via piping which penetrates Primary Containment and leads to the FPM system panels. This flow is analyzed by various means and returned to the Primary Containment.

In this event, a signal entered the initiation logic for the SGT system and the isolation logic for the ventilation and FPM systems. The source of the signal could not be identified, but a review of the affected logic systems indicated that the systems responded per design given the fact that a trip/initiation signal had been introduced. The expected system responses placed the affected systems in their accident configurations. Therefore, should an accident have occurred during this event, the affected systems would not have been hindered from performing their safety functions.

Based on this analysis it is concluded that this event had no adverse impact on nuclear safety. This analysis is applicable to all power levels.

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CORRECTIVE ACTIONS

Since the cause of the event could not be determined, no corrective actions could be carried out to prevent recurrence. The FCM system was returned to service and the SGT systems were returned to their normal (standby) configurations without incident by 0040 CDT on 08/28/92.

ADDITIONAL INFORMATION

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

There were no events reported in the past two years in which ESF actuations occurred without the cause of the event being identified. Also, since the cause cannot be identified in this particular case, no comparison with previous ESF actuation events can be made.

No failed components contributed or resulted from this event.