

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) EDWIN I. HATCH, UNIT I										DOCKET NUMBER (2) 0 5 0 0 0 3 2 1 1 OF 0 4										PAGE (3) 1 OF 0 4								
TITLE (4) POSSIBLE CABLE TRAY SUPPORT SEISMIC OVERLOADING IN AN EARTHQUAKE																												
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 NAMES E. I. HATCH, UNIT II										DOCKET NUMBER(S) 0 5 0 0 0 3 6 6									
0	5	1	5	8	5	8	5	0	1	7	0	0	0	5	2	8	8	5	0 5 0 0 0									
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																										
1		20.402(b)				20.406(c)				50.73(a)(2)(iv)				73.71(b)														
POWER LEVEL (10)		20.406(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)														
1 0 0		20.406(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)														
		20.406(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)																		
		20.406(a)(1)(iv)				<input checked="" type="checkbox"/> 50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)																		
		20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)				10CFR21														
LICENSEE CONTACT FOR THIS LER (12)																												
NAME Steven B. Tipps, Superintendent of Regulatory Compliance										TELEPHONE NUMBER 9 1 2 3 6 7 + 7 8 5 1																		
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																												
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE 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 (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 05/15/85, Georgia Power Company (GPC) was informed by its architect/engineers that one of the cable tray supports (i.e., support "No. 33" located in the cable spreading room) in Plant Hatch was a potentially significant safety hazard. On 05/23/85, after evaluating the architect/engineers report, this event was determined to be reportable per the requirements of 10CFR21. During the recent seismic re-evaluations it was found that during an Operating Basis Earthquake (OBE) or Safe Shutdown Earthquake (SSE) the base connection for cable tray support "No. 33" could experience loading in excess of that given in the plant operability criteria. The architect/engineer was unable to exactly determine whether or not the seismic loading would exceed the structural capacity of this support. However, it was determined that the design during an analyzed earthquake would be marginal.

The cause of this event was a design error by the architect/engineer.

Cable tray support "No. 33" was redesigned and the modifications were made such that support "No. 33" met the criteria on the new design on 04/30/85. Thus, cable tray support "No. 33" met all operability requirements and FSAR criteria, prior to the architect/engineer notification of this deficiency. Cable tray support "No. 33" was successfully functionally tested on 05/20/85.

This LER meets the reporting requirements of 10CFR21 and 10CFR50.73(a)(2)(ii).

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

This LER meets the reporting requirements of 10CFR21 and 10CFR50.73(a)(2)(ii).

On 05/15/85, Unit 1 was in steady-state operation at approximately 2435 Mwt (approximately 100% reactor power), and Unit 2 was in cold shutdown).

On 05/15/85, Georgia Power Company (GPC) was informed by its architect/engineers that one of the cable tray supports (i.e., support "No. 33" located in the cable spreading room) in Plant Hatch was a potentially significant safety hazard. On 05/23/85, after evaluating the architect/engineers report, this event was determined to be reportable per the requirements of 10CFR21. During the recent seismic re-evaluations it was found that during an Operating Basis Earthquake (OBE) or Safe Shutdown Earthquake (SSE) the base connection for cable tray support "No. 33" could experience loading in excess of those given in the plant operability criteria. The architect/engineer was unable to exactly determine whether or not the seismic loading would exceed the structural capacity of this support. However, it was determined that the design during an analyzed earthquake would be marginal.

The safety evaluation for Unit 1 showed that affected conduits in Division I and II could prevent the essential LPCI inverter room coolers from being operable in an analyzed major earthquake if cable tray support "No. 33" actually failed.

Failure of the subject support during a major earthquake could render the cables contained in the attached trays and conduits inoperable. This could in turn render the systems associated with these cables inoperable.

The following Plant Hatch Unit 2 systems employ cables which could become inoperable following the subject structural failure since the conduits containing the cables for both divisions of these systems are attached to the support in question:

- Reactor Building Service Water
- Safeguard Equipment Cooling
- Reactor Building Ventilation
- Standby Gas Treatment (SBGT)
- LPCI Inverter Room Cooling
- Emergency Response Facility Digital Computer

In addition, Division I of each of the following systems is assumed to fail following the subject support failure:

Reactor Core Isolation Cooling (RCIC)	Nuclear Steam Supply Shutoff
Nuclear Boiler Process Instrumentation	Automatic Depressurization System
Process Radiation Monitoring	Residual Heat Removal (RHR)
Main Steam Isolation Valve Leakage Control	Plant Service Water
Emergency Station Service 4160 Volt	Emergency Station Services 600 Volt
Emergency Diesel Generator "2A"	250 VDC Inverter
Drywell Cooling	Primary Containment Purge and Inerting
Drywell and Torus Differential Pressure	Post LOCA Hydrogen Recombiner
Reactor Recirculation Pump Motor-Generator Set "A"	

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TEXT (If more space is required, use additional NRC Form 366A (2/17))

The postulated failure of the support results in the following equipment failures in both divisions:

- o Loss of autostart capability of both trains of RCIC and HPCI pump room coolers. The operator has manual control and room temperature indication and alarms, however, so that the cooler can be manually started before loss of either system occurs.
- o Loss of both divisions of auto trip and isolation (on high radiation) capability for the reactor building ventilation system. Manual operating capability still exists.
- o Both trains of SBT become inoperable because:
 - various isolation dampers fail in the open position
 - the fan becomes inoperable
- o Two 2-inch containment purge lines from the torus could open. This results in loss of primary containment integrity.
- o Loss of essential room coolers for the LPCI inverters. This compartment is common to both units. The LPCI room inverters provide power to the LPCI injection valves, RHR minimum flow valves, and the recirculation pump suction and discharge valves. The loads could be transferred to the "2C" diesel generator, assuming a seismically induced failure of the cooler control circuit.

Any of the previous failures (for Unit 1 or 2) following a major earthquake might result in a loss of safety function to the extent that there could be significant reduction in the degree of protection provided for public health and safety. This meets the definition for a Substantial Safety Hazard given in 10CFR21(k).

The cause of this event was a design error by the architect/engineer.

Redesign of the subject cable tray support to restore the required design margin was initiated prior to final determination of inadequacy, and was completed with issuance of a finalized design package by the architect/engineer on 04/02/85. This package was issued per GPC request due to a determination, which was made approximately one month prior to the potentially significant safety hazard finding, that this component did not meet the FSAR criteria. The modifications, which were completed on 04/30/85, added braces to the support and upgraded the capacity of the base connections. The modified cable tray support now meets all operability and FSAR criteria.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

At GPC's direction, the architect/engineers for Plant Hatch have instituted a design tracking program which monitors the addition of new load to cable tray supports at the plant. In this manner, overloading of these supports can be prevented in the future. GPC is continuing an extensive program of evaluations and field walk-downs to determine if any other Plant Hatch cable tray supports are deficient with respect to the FSAR and/or the previously referenced operability criteria. Should any further problems be discovered, GPC will correct the defect(s) and fulfill the reporting requirements of 10CFR21 and 10CFR50.73.

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Georgia Power

Edwin I. Hatch Nuclear Plant

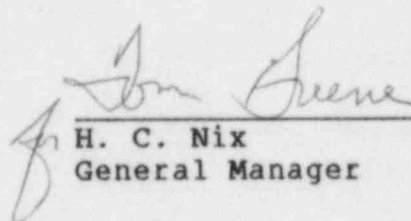
May 28, 1985

GM-85-540

PLANT E. I. HATCH
Licensee Event Report
Docket No. 50-321

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Attached is Licensee Event Report No. 50-321/1985-017. This report is required by 10CFR21 and 10CFR50.73(a)(2)(ii).


H. C. Nix
General Manager

SB
HCN/STB/viz

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