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HL-1542
0001392

March 25, 1991

U.S. Nuclear Regulatory Commission
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PLANT HATCH - UNIT 1
NRC DOCKET 50-321
OPERATING LICENSE DPR-57
SPECIAL REPORT 1-91-002
BATTERY-POWERED EMERGENCY LIGHTING
UNITS INOPERABLE FOR A PERIOD
GREATER THAN 72 HOURS

Gentlemen:

In accordance with Plant Hatch Unit 1 Technical Specifications section 6.9.2 and Appendix B of the Fire Hazards Analysis, Georgia Power Company is submitting the enclosed Special Report concerning battery-powered emergency lighting units which were inoperable for a period greater than 72 hours.

Sincerely,

J. T. Beckham, Jr.

OCV/cr

Enclosure: Special Report 1-91-002

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
Mr. J. D. Heidt, Manager Engineering and Licensing - Hatch
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U.S. Nuclear Regulatory Commission, Washington, D.C.
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ENCLOSURE

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A. Requirement for Report

This special report is required by Unit 1 Technical Specifications (TS) section 6.9.2 and Appendix B of the Fire Hazards Analysis (FHA). TS section 6.9.2 states "Special Reports for fire protection equipment operating and surveillance requirements shall be submitted, as required, by the Fire Hazards Analysis and its Appendix B requirements." FHA Appendix B, section 1.9.1, states, "All self-contained, battery-powered emergency lighting units required to support unit shutdown in the event of a fire and coincident loss of offsite power shall be OPERABLE." The ACTION statement requires that in the event a battery-powered emergency lighting unit is inoperable for greater than 72 hours, a special report must be submitted to the Commission within 30 days.

In the event described herein, 10 Unit 1 battery-powered emergency lighting units were inoperable for a period exceeding 72 hours.

B. Unit(s) Status at Time of Event

On 3/1/91, at approximately 1130 CST, Unit 1 was in the Run mode at an approximate power level of 1218 CMWT (approximately 50 percent of rated thermal power) and was ascending in power toward normal full-power operation.

C. Description of Event

The 8-hour discharge test is normally performed per surveillance procedure 42SV-FPX-003-0S, "Emergency Lighting Surveillance." This procedure is performed approximately every 120 days on about one-third of the plant's battery-powered emergency lighting units. The specific lighting units to be tested at designated times are shown on a computer-generated Surveillance Task printout which, along with a copy of the surveillance procedure, is given to Maintenance personnel for execution.

On 3/1/91, personnel from the site Safety Audit and Engineering Review (SAER) Department were conducting a routine audit of compliance with fire protection requirements. During the audit, SAER personnel discovered the 8-hour battery discharge tests had been missed on 10 battery-powered emergency lighting units. FHA Appendix B, Surveillance Requirement 2.9.1, requires the discharge tests to be performed at least once per 12 months. The subject tests should have been performed on the 10 units in October 1990.

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In this event, Surveillance Task Sheet 1-3000-022, dated 9/23/90, indicated the 81 battery-powered emergency lighting units to be tested for the trimester. Seventy-one units were tested as required; however, surveillance testing on 10 units was missed.

D. Cause of Event

The cause of the event is personnel error. Surveillance Task Sheet 1-3000-022 correctly identified the battery-powered emergency lighting units to be tested; however, the individuals responsible for performing the tests overlooked 10 of the indicated units. The oversight can be partially attributed to the fact the specific battery-powered lighting units to be tested were designated on a Surveillance Task printout rather than in surveillance procedure 42SV-FPX-003-0S.

E. Analysis of Event

The battery-powered emergency lighting units are designed to provide illumination for certain areas and/or pieces of equipment in the event of a fire concurrent with a loss of offsite power (LOSP). During a LOSP, the automatic load shedding function of the emergency diesel generators will disconnect power to various areas of normal plant lighting, thereby triggering the emergency lights. Relative to this event, a tabulation of the 10 affected battery-powered emergency lighting units and the areas the lights were intended to illuminate is shown on page E-4 of this enclosure.

In the event the normal building lights located in the areas shown on page E-4 are extinguished, flashlights are available in the Maintenance Tool Storage area. In addition, Procedure 34GO-OPS-030-1S, "Inside Daily Rounds," requires plant operators to carry flashlights during daily rounds.

On 3/2/91, 8-hour discharge surveillance testing was performed on the 10 battery-powered emergency lighting units which had been previously overlooked. The testing was performed in accordance with FHA Appendix B, section 2.9.1, item b. Seven units performed satisfactorily during the testing. Three units(1R42-E011, 1R42-E008, and 1R42-E004) failed to perform satisfactorily, and as a result, the batteries for these units were replaced the same day. Therefore, even though 10 units were declared inoperable due to missed surveillances, seven units were capable of performing their intended emergency function.

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Lighting unit 1R42-E004, which failed the 8-hour discharge surveillance testing conducted on 3/2/91, is located in the RPS MG set room, an area where equipment may need to be manipulated under emergency conditions. Emergency lighting unit 1R42-E083, which is also located in the RPS MG set room, was operable at the time the event occurred. The other two lighting units (1R42-E011 and 1R42-E008) that failed the testing illuminate hallway or walkway areas which are free of equipment that may need to be manipulated under emergency conditions.

Based on the above analysis, it is concluded this event had no adverse impact on nuclear safety.

F. Corrective Actions

1. The affected battery-powered emergency lighting units were restored to operable status on 3/2/91.

2. Surveillance procedur ~2SV-FPX-003-0S will be revised. The specific battery-powered emergency lighting units to be tested during each trimester will be designated in the procedure rather than on the Surveillance Task printout. This action will be complete by 4/30/91.

3. The involved Maintenance personnel have been counseled on the need for attention to detail.

ENCLOSURE (Continued)

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INOPERABLE EMERGENCY LIGHT NUMBER	COMPONENT NUMBER OR AREA TO BE ILLUMINATED
1R42-E001 1R42-E001, Remote no. 1	Control Building, el 138 ft, inside west stairwell, with remote head at stair landing in same stairwell, el 155 ft.
1R42-E086	Control Building, el 164 ft, west stairwell.
1R42-E011	Control Building, el 164 ft, access to Control Room through kitchen, northwest corner.
1R42-E014 1R42-E014, Remote no. 1 1R42-E014, Remote no. 2 1R42-E014, Remote no. 3 1R42-E014, Remote no. 4	Battery unit with remote heads in Turbine Building, el 164 ft, "B" Reactor Feedpump Turbine area.
1R42-E015	Control Building, el 164 ft, area light in hallway outside Control Room.
1R42-E004	Control Building, el 130 ft, Unit 1 Reactor Protection System (RPS) motor-generator (MG) set room.
1R42-E081	Control Building, el 130 ft, switchgear room 1C.
1R42-E080	Control Building, el 130 ft, switchgear room 1D.
1R42-E007	Turbine Building, el 130 ft, door C22 from cableway into Control Building.
1R42-E008 1R42-E008, Remote no. 1 1R42-E008, Remote no. 2 1R42-E008, Remote no. 3	Battery unit with remote heads in Turbine Building, el 130 ft, along portions of the east cableway.