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Georgia Power

the southern electric system

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June 5, 1992

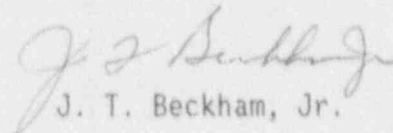
U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

PLANT HATCH - UNIT 2  
NRC DOCKET 50-365  
OPERATING LICENSE NPF-5  
SPECIAL REPORT 2-92-003  
MISSED SURVEILLANCE AND INOPERABILITY OF BATTERY POWERED  
EMERGENCY LIGHTING UNITS RESULT IN A SPECIAL REPORT  
AS REQUIRED BY THE FIRE HAZARD ANALYSIS

Gentlemen:

In accordance with the Unit 2 Technical Specifications and the Fire Hazards Analysis (FHA), Georgia Power Company is submitting the enclosed Special Report concerning a missed surveillance and inoperability of battery powered emergency lighting units. These events occurred at Plant Hatch - Unit 2.

Sincerely,

  
J. T. Beckham, Jr.

JKB/cr

Enclosure: Special Report 2-92-003

cc: (See next page.)

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U.S. Nuclear Regulatory Commission

June 5, 1992

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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. Ebnetter, Regional Administrator  
Mr. L. D. Wert, Senior Resident Inspector - Hatch

ENCLOSURE

PLANT HATCH - UNIT 2  
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A. REQUIREMENT FOR REPORT

This report is required by the Unit 2 Technical Specifications Section 6.9.2 which states that Special Reports for fire protection equipment operating and surveillance requirements shall be submitted as required by the Fire Hazards Analysis (FHA) 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. Section 2.9.1.b requires that these lighting units be tested once per 12 months by performing an 8-hour battery discharge test. In the events described herein, it was discovered that the surveillance had not been performed on one of the lighting units as required, and one other light remained inoperable for greater than 72 hours, therefore, a Special Report is required.

B. UNIT STATUS AT TIME OF EVENT

On 5/6/92 and 5/21/92, Unit 2 was in the Run mode at a power level of 2435 CMWT (100 percent rated thermal power).

C. DESCRIPTION OF EVENT

On 5/6/92, non-licensed engineering personnel were conducting a review of procedure 42SV-FPX-003-OS, "Emergency Lighting Surveillance." The procedure provides guidelines for the inspection and functional testing of the Remote Shutdown Path Emergency Lighting Units which implement the requirements of fire protection operating and surveillance requirements of Appendix B Section 2.9.1.a and 2.9.1.b of the FHA. This is accomplished by performing a monthly inspection of the physical condition of indicating lamps, electrolyte level etc., as well as conducting an 8-hour battery discharge test on about one-twelfth of the lighting units approximately every 31 days, such that all the lights are tested at least once per year.

ENCLOSURE (Continued)

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During the review, the personnel discovered that the annual 8-hour battery discharge test on lighting unit 2R42-E104 had not been performed in 1991 as required. The test should have been performed on the light in January, 1991. Deficiency Card (DC) 2-92-1465 was written to document the deficiency as required by plant procedures. No additional deficiencies in the surveillances of other emergency lighting units were identified by a review of the procedure. A review of more recent documentation showed that light 2R42-E104 had been verified operable by performing an 8-hour battery discharge test per procedure 42SV-FPX-003-OS during its scheduled surveillance on 1/6/92.

On 5/18/92, non-licensed maintenance personnel were performing the annual 8-hour battery discharge test on lighting unit 2R42-E039 per procedure 42SV-FPX-003-OS. During performance of the test, the light failed to illuminate bright and clear for 8 hours as required by the procedure. DC 2-92-1575 was written to document the failure of the subject light and initiate corrective actions. Limiting Condition for Operations (LCO) 2-92-335 was initiated on 5/18/92 at 1200 CDT, by licensed Operations personnel to track corrective actions, and to ensure compliance with the FHA. However, for reasons given later in this report, the light could not be restored to operable status within the 72-hour period allowed by the FHA, Appendix B, Section 1.9.1. DC 2-92-1597 was written to document the fact that light 2R42-E039 remained inoperable for greater than 72 hours. Following completion of repairs on the failed light and the satisfactory completion of testing per the procedure, the light was restored to operable status on 5/22/92, and LCO 2-92-335 was terminated.

D. CAUSE OF EVENT

The cause for the missed surveillance on lighting unit 2R42-E104 is personnel error. 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 task performance. In this event, Surveillance Task Sheet 1-3000-5 dated 12/26/90, correctly identified light 2R42-E104 as one to be tested; however, the test was incorrectly marked "N/A" (not applicable) by the individual performing the procedure. As a result, the surveillance was not performed as required. Since more than one individual was involved in performance of the tests on the 73 lighting units to be tested during that surveillance period, the individual who marked the test "N/A" for the light could not be identified.

ENCLOSURE (Continued)

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In the second event, Maintenance personnel troubleshooting the failure of lighting unit 2R42-E039 determined that a defective battery caused the light to fail. After replacing the battery, the new battery was charged for approximately 24 hours and then the 8-hour discharge test was conducted. After the test, the light failed to illuminate. Further investigation determined that a defective charging module was preventing the battery from holding its charge, thus, resulting in failure of the light to illuminate. The defective charging module was replaced and the battery was charged again for 24 hours. The 8-hour battery discharge test was then conducted satisfactorily. The time needed to determine the existing battery and battery charging module were defective, in conjunction with the time necessary to repeat the discharge tests and recharge the battery, was such that the lighting unit could not be returned to an operable status within 72 hours.

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. Lighting units 2R24-E104 and 2R42-E039 are used to illuminate Motor Control Center 2R24-S022 and the Diesel Building access areas, respectively.

In the event that the normal building lights for the affected areas are extinguished and the emergency lighting units fail to operate, plant operators can use flashlights for any required emergency operations. Procedure 34G0-OPS-030-2S, "INSIDE DAILY ROUNDS," required plant operators to carry flashlights with them during their daily rounds. Also, flashlights are available continually in the Maintenance Tool Storage Area for use during emergencies.

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

F. CORRECTIVE ACTIONS

1. The battery-powered emergency lighting unit 2R42-E039 was demonstrated operable by performing an 8-hour battery discharge test in accordance with FHA Appendix B, Section 2.9.1.b. Lighting unit 2R42-E104 had been demonstrated operable during its scheduled surveillance on 1/6/92.



ENCLOSURE (Continued)

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2. Since the missed annual surveillance on 2R42-E104, surveillance procedure 42SV-FPX-003-OS has been revised. The current revision includes the specific battery-powered emergency lighting units to be tested during each month. This action should prevent future errors in matching the procedure requirements with the Surveillance Data Base as both now reference the specific lights to be tested each month.