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Georgia Power
the southern electric system

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Docket No. 50-321

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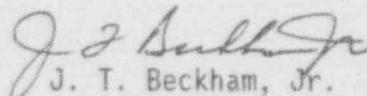
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant - Unit 1
Special Report 1-93-004
Fire Rated Assemblies Inoperable for Greater Than 14 Days
Results in Special Report as Required by the Fire Hazards Analysis

Gentlemen:

In accordance with the requirements of the Unit 1 Technical Specifications and the Fire Hazards Analysis, Georgia Power Company is submitting the enclosed Special Report concerning an event where fire rated assemblies were inoperable for greater than 14 days.

Sincerely,


J. T. Beckham, Jr.

OCV/cr

Enclosure: Special Report 1-93-004

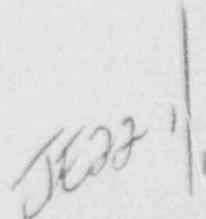
cc: Georgia Power Company
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U.S. Nuclear Regulatory Commission, Washington, D.C.
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A. Requirement for Report

This report is required by the Plant Hatch Unit 1 Technical Specifications Section 6.9.2, and the Plant Hatch Fire Hazards Analysis, Appendix B, Section 1.1.1. Specifically, Technical Specification 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 (FHA) and its Appendix B requirements."

FHA Appendix B, Section 1.1.1 states:

"Fire-rated assemblies and sealing devices in fire-rated assembly penetrations separating portions of safety-related fire areas or separating redundant systems important to safe shutdown within a fire area shall be OPERABLE."

Furthermore, Action Statement (a) of Appendix B, Section 1.1.1, allows the fire rated assembly and/or sealing devices to be inoperable for up to 14 days provided, within 1 hour, a continuous fire watch on at least one side of the affected assembly(s) and/or sealing device(s) is established, or fire detectors are verified operable on at least one side of the inoperable barrier and an hourly fire watch patrol is established. Action Statement (b) states that, if the 14-day time limit is exceeded, a Special Report must be submitted to the NRC within 30 days. In the event described in this report, it was determined that fire rated assemblies were not installed on two cable trays as required by 10 CFR 50, Appendix R. Investigations showed that these conditions had existed for longer than 14 days, therefore, this Special Report is required.

B. Unit Status at Time of Event

On 5/12/93 at 1700 CDT, Unit 1 was in the cold shutdown mode with startup preparations in progress.

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C. Description of Event

On 5/12/93, at 1700 CDT, plant personnel were validating procedure 42SV-FPX-028-0S, "Raceway Surveillance - TSI Material," by using a raceway wrap list recently prepared by the Architect Engineer (A/E). At that time, they discovered that cable trays TFQ5-01 and TFR3-01 were not enclosed in Thermo-Lag 330-1 fire barrier material as required by the Safe Shutdown Analysis Report (SSAR). Further investigation revealed that drawing H-40253 was incorrect in that the drawing did not reflect that the subject trays were enclosed in a fire rated material. Also, the trays were not included in surveillance procedure 42SV-FPX-028-0S.

Deficiency Card 1-93-2010 was written to document these conditions. Operations personnel initiated Limiting Condition for Operation (LCO) 1-93-386 as required by plant administrative control procedures, appropriate fire detectors were verified to be operable, and an hourly fire watch was established as required by the FHA, Appendix B, Section 1.1.1.

On 5/24/93, investigation into the cause of the event revealed that this condition had apparently existed since implementation of the 10 CFR 50, Appendix R requirements. Since the trays had been in this condition for greater than 14 days, the event was required to be reported in accordance with FHA Appendix B, Section 1.1.1.

D. Cause of Event

The cause of this event was an inadequate design. Untimely corrective action was the result of personnel error.

Cable trays TFQ5-01 and TFR3-01 were not enclosed in Thermo-Lag 330-1 fire barrier material during the implementation of the 10 CFR 50 Appendix R requirements as a result of an inadequate design. The original analysis was incorrect in that the circuit routing used in the analysis did not reflect actual plant conditions. Specifically, these cable trays contain circuits associated with the Path 3 Safe Shutdown equipment and were not analyzed for the appropriate fire area. Consequently, the requirement for a fire rated enclosure for these cable trays was not identified at that time and the requirement was not translated into the appropriate design and plant documents.

The cause for untimely corrective action was personnel error in that the design deficiency was not clearly communicated to the appropriate management in a timely manner. The circuit routing discrepancy was identified by A/E personnel in 1990 as requiring a fire barrier enclosure. While A/E personnel did revise the SSAR on 5/25/90 to include these cable trays, they failed to notify plant personnel of the deficient condition through the deficiency card process. Consequently, no actions were initiated to provide fire rated enclosures for the cable trays at that time nor were any actions taken to update the appropriate drawings and plant procedures to show that the subject trays were required to be enclosed in Thermo-Lag 330-1.

E. Analysis of Event

In this event, licensed operations personnel initiated LCO 1-93-2010 on 5/12/93. Appropriate fire detectors were verified to be operable and an hourly fire watch was established as required by the FHA, Appendix B, Section 1.1.1, Action Statement (a). Action Statement (a) requires that:

With one or more of the required fire rated assemblies and/or sealing devices inoperable, within 1 hour establish a continuous fire watch on at least one side of the affected assembly(s) and/or sealing device(s) or verify the operability of fire detectors on at least one side of the inoperable assembly(s) and sealing device(s) and establish an hourly fire watch patrol.

These actions would help ensure early detection of a fire in the zone such that timely actions could be taken to extinguish the fire.

The combustible loading in the affected fire zone is such that a design basis fire would develop slowly allowing ample time for response by the plant fire brigade. Additionally, full coverage of the area by linear heat detection and manual and automatic suppression systems ensures timely detection and suppression of a fire. Consequently, a fire in the area would most likely be detected immediately and rapidly extinguished.

In the unlikely event that a fire developed in the area resulting in a loss of function of unprotected circuits including those in cable trays TFQ5-01 and TFR3-01, the capability would still exist to achieve and maintain safe shutdown of the plant. Specifically, the ability to scram

the reactor would be unaffected. Also, the Automatic Depressurization System (ADS), and a division of the Residual Heat Removal - Low Pressure Coolant Injection (RHR-LPCI) system would be unaffected by such a fire; therefore, they would be available to provide adequate core cooling.

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

F. Corrective Actions

1. LCO 1-93-2010 was initiated, appropriate fire detectors were verified to be operable, and an hourly fire watch was established as required by the FHA, Appendix B, Section 1.1.1, Action Statement (a). These actions were taken on 5/12/93 when the deficient condition was identified.
2. The involved A/E personnel were counseled regarding failure to notify plant personnel of deficient plant conditions.
3. Design Change Request (DCR) 1H93-028 was initiated regarding providing fire rated enclosures for the cable trays. The DCR will be implemented by 9/30/93. The hourly fire watch will continue until that time. The appropriate design drawings and plant procedures will be revised as part of the DCR process.

Although the SSAR currently contains the requirement to enclose the subject cable trays, the SSAR will also be revised as part of the DCR process to add the subject cable trays to the as-built wrapped raceway summary after the subject cable trays are enclosed in Thermo-Lag 330-1.

4. Corrective actions relative to the untimely dissemination of information by A/E personnel were previously implemented in 1992 in response to an event as described in Licensee Event Report 50-321/92-13. The corrective actions consisted of a procedural revision to provide more specific instructions relative to the responsibility for reporting deficient conditions. These corrective actions would not have prevented the event described in this report as the event occurred prior to implementation of the corrective actions.

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5. A review of the administrative controls and procedures used to implement SSAR requirements will be performed to ensure that the processes and controls are adequate. This review will be completed by 9/30/93.