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Georgia Power

the southern electric system

HL-1691
001823

June 21, 1991

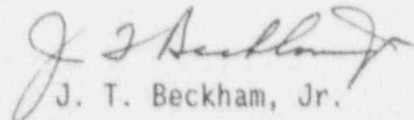
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
SPECIAL REPORT 1-91-006
FIXED WATER SPRAY NOZZLES INOPERABLE
FOR A PERIOD LONGER THAN 14 DAYS

Gentlemen:

In accordance with Plant Hatch Unit 1 and Unit 2 Technical Specifications section 6.9.2 and Appendix B of the Fire Hazards Analysis, Georgia Power Company is submitting the enclosed Special Report concerning fixed water spray nozzles which were inoperable for a period greater than 14 days.

Sincerely,


J. T. Beckham, Jr.

SRP/sp

Enclosure: Special Report 1-91-006

cc: Georgia Power Company

Mr. H. L. Sumner, General Manager - Nuclear Plant
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ENCLOSURE

PLANT HATCH - UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
OPERATING LICENSES DPR-57 AND NPF-5
SPECIAL REPORT 1-91-006
FIXED WATER SPRAY NOZZLES INOPERABLE FOR LONGER
THAN 14 DAYS RESULTS IN A SPECIAL REPORT
AS REQUIRED BY THE FIRE HAZARDS ANALYSIS

A. REQUIREMENT FOR REPORT

This report is required by Unit 1 and Unit 2 Technical Specifications section 6.9.2 which 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."

Fire Hazards Analysis (FHA) Appendix B, section 1.4.1, states, "The spray and/or sprinkler systems in Tables 1.4-1 and 1.4-2 in Appendix B shall be OPERABLE." Action b of section 1.4.1, allows the spray and/or sprinkler systems to be inoperable for 14 days. If this timeframe is exceeded, a Special Report is required. The deficiency addressed herein was corrected within 14 days of identification. However, it was concluded from the investigation of this event the condition had existed for greater than 14 days prior to its identification. Therefore, a Special Report is required.

B. UNIT STATUS AT TIME OF EVENT

On 5/26/91 at approximately 1535 CDT, Unit 1 was in the Run mode at an approximate power level of 2430 CMWT (approximately 100 percent of rated thermal power). Unit 2 was in Cold Shutdown with preparations in progress for startup following a refueling outage.

C. DESCRIPTION OF EVENT

On 5/26/91 at approximately 1535 CDT, nonlicensed personnel were conducting an inspection of fire sprinkler systems in accordance with Department Instruction DI-ENG-02-0684N, "Pre-Startup System Inspection Walkdowns," which requires plant systems be inspected prior to unit startup. The inspection revealed the spray pattern for fixed water spray nozzles 1Y43-N006T and 1Y43-N006V was obstructed by electrical conduit.

Spray nozzles 1Y43-N006T and 1Y43-N006V are located in the plant's Intake Structure and provide fire suppression capability on the east side of Unit 2 Residual Heat Removal Service Water (RHRSW) pump motors

ENCLOSURE (Continued)

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2E11-C001A and 2E11-C001C. With the spray pattern of the two nozzles obstructed, the fire suppression capability for the east side of RHRSW pump motors 2E11-C001A,C and the adjacent area was degraded. Therefore, the subject nozzles were declared inoperable.

Deficiency Card 2-91-2620 was written to document the inoperability of the spray nozzles, and licensed personnel were notified. Subsequently, Limiting Condition for Operation (LCO) 2-91-440 was initiated on 5/26/91 at approximately 1600 CDT. A continuous fire watch was established, as required by FHA Appendix B, section 1.4.1, Action a.

D. CAUSE OF EVENT

The cause of the event was indeterminate. A review of maintenance history records failed to yield any evidence to indicate conclusively the origin of the condition. Also, maintenance records did not indicate work which could have resulted in the inoperable condition had been performed on the RHRSW system or the fire sprinkler system since the performance of the last fire sprinkler system surveillance. This 18-month surveillance is required by FHA Appendix B, section 2.4.1, and is implemented by plant procedure 42SV-FPX-016-1S, "Sprinkler System Surveillance Safety-Related Areas." The procedure in part requires the spray pattern of each system nozzle be inspected to ensure its integrity. During the last surveillance of the Intake Structure sprinkler system performed on 5/24/90, the condition was not identified. It is assumed the condition existed at the time of the 1990 surveillance and was inadvertently missed during that inspection.

E. ANALYSIS OF EVENT

Licensed personnel declared the affected spray nozzles inoperable and established a continuous fire watch with backup fire suppression equipment, as required by FHA Appendix B, section 1.4.1, Action a.

Active fire protection in the Intake Structure (fire area 0501), is provided by:

1. A complete thermal detection system that provides reasonable assurance of early fire detection and response by the plant fire brigade.

ENCLOSURE (Continued)

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2. The water spray system located above the pump motors. In this event, one of the two spray nozzles for each of the Unit 2 RHRSW pump motors 2E11-C001A and C was inoperable. Each pump motor is served by two spray nozzles. One nozzle provides automatic fire suppression capability for the east half of the pump motor and adjacent area, while the second nozzle provides automatic fire suppression capability for the west half of the pump motor.

Passive protection in the Intake Structure is provided by:

1. Physical separation of redundant divisions by open spaces without intervening combustibles.
2. Partial height barriers to protect the safety components.
3. Complete 1-hour fire rated barriers.

The redundant divisions of the Unit 2 RHRSW system are separated by a partial height barrier. RHRSW pump motors 2E11-C001A and C are in the same division and are separated from the redundant division's RHRSW pump motors, 2E11-C00B and D, by the partial height barrier.

Fire loading in the Intake Structure is low. Storage of any transient combustible materials is procedurally controlled. The primary combustibles are cable insulation in trays and oil in pump sumps. The majority of the cables are provided with fire resistant wrap specifically for the purpose of reducing the combustible loading. Ignition of the oil in closed sumps is extremely unlikely. If the combustibles were totally consumed, they would produce a fire which corresponds to a fire severity of less than 15 minutes.

Therefore, if a fire occurred in the Intake Structure, it would not be significant and would not breach the protection provided by the physical fire barriers until the fire self-extinguished or was suppressed by the plant fire brigade. Hence, a fire in this area will not affect the ability to achieve safe shutdown or result in any release of radioactivity.

Based on this information, this event had no adverse affect on nuclear safety.

ENCLOSURE (Continued)

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F. CORRECTIVE ACTIONS

1. On 6/6/91, the subject conduits were routed away from the vicinity of spray nozzles 1Y43-N006T and 1Y43-N006V so as not to obstruct their spray pattern. The work was performed under Maintenance Work Order 2-91-2724.
2. Sprayer nozzles 1Y43-N006T and 1Y43-N006V were declared operable per procedure 42SV-FPX-016-1S. WCO 2-91-440 was terminated on 6/6/91 at approximately 1945 CDT.
3. The spray nozzles for other pump motors located in the Intake Structure, including those for Unit 2 RHRSW pump motors 2E11-C001B and D, were inspected. No similar conditions were identified.
4. The individual who performed the surveillance on 5/24/90 was counseled.
5. The 18-month sprinkler system surveillance is currently scheduled to be completed by 1/31/92.