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Georgia Power

the southern electric system

NED-84-558

October 26, 1984

Director of Nuclear Reactor Regulation  
Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
BASIS FOR REQUEST FOR EXEMPTION TO 10 CFR 50.48

Gentlemen:

In discussions between the NRC staff and representatives of Georgia Power Company (GPC) the need to amplify upon the necessity for schedular exemption to the provisions of 10 CFR 50.48 was disclosed. GPC submits the following discussion pursuant to that need.

10 CFR 50.48 provides a schedular requirement which, in part, allows nine months after termination of the tolling provision of Section C [6] for implementation of non-outage related 10 CFR 50 Appendix R modifications. Similarly, an allowance to the end of a specific outage (as defined in Section C [3]) is provided for outage related modifications. These schedular allowances for design, procurement, and installation of Appendix R modifications were established through conventional rulemaking to address a typical program for meeting what were then perceived to be the requirements of Appendix R. It was noted by public comments submitted in response to the proposed 10 CFR 50.48, published in the May 29, 1980 Federal Register, that insufficient time was provided for compliance. In recognition of these comments, and the fact that the effective date of the rule was beyond the stated schedule for compliance, 10 CFR 50.48's implementation requirements were revised to the schedular allowances noted above. However, these allowances are still inadequate for implementation of a project of the magnitude of the fire protection enhancement program at Plant Hatch. In order to gauge the scope and extent of the program being undertaken, one

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should note the projected cost of approximately twenty-five million dollars (excluding the alternate shutdown system for the control room/cable spreading room fire). Such a program cannot be practically or effectively implemented within the time frame estimated in the development of the Appendix R regulation. This insufficient schedular allowance in the regulation is the fundamental cause of our requested exemption to the provisions of 10 CFR 50.48.

In the specific case of Plant Hatch, some additional considerations are worthy of review. Plant design is not static -- Appendix R is being implemented on a plant undergoing change. Consequently, design is predicated on a predicted plant configuration. One of the fundamental concepts employed in our defense-in-depth fire protection design is the establishment of fire barriers about safe shutdown related equipment and cables. Currently, extensive redesign and modification of such equipment and cables is underway in response to programs such as equipment qualification, operational safety enhancements, and plant reliability improvements. These projects are inherently interdependent and, in fact, the design for Appendix R cableway barriers must in many cases follow the final design of the equipment qualification project. Indeed, the two designs compliment one another wherever possible such that installation of the new equipment and its related cabling meet the separation requirements of Appendix R and preclude the need of barriers installation. The scope and implementation delays of the equipment qualification program have been the subject of separate correspondence. The intergration of these efforts is necessary for effective safe modification of the plant to meet current regulation and hence implementation of Appendix R is directly impacted by delays in these other programs. This special relationship was cited in our letter NED-84-035 dated January 25, 1984.

The design sequences of the Appendix R modifications themselves are more complex than is immediately obvious. After the extensive analysis required to establish what plant equipment and circuits require protection, design must sequentially address several factors. In the case of wrapping a cable tray for example, the designer must: 1) perform a design walkdown to confirm design assumptions; 2) perform a seismic reanalysis of the cable tray; 3) redesign the cable tray supports to account for the increased mass of the barrier material; and 4) design the barrier wrap. Neither the final bill-of-materials with its potential associated delivery problems, nor the specifications for the bidding of installation contracts can proceed until

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the design is near its final stages. Following design, implementation must logically wait for any rerouting of cables from Appendix R or equipment qualification modifications. Further, any extensive fire detection or suppression modifications in the immediate vicinity which might lead to damage of the wrap must be factored into the implementation process. Finally, upgrading of the tray supports, as necessary, and tray wrapping may be accomplished. This example points out some of the difficulty in implementation which leads to schedules which are longer than were anticipated during the development of the regulation.

The final design must follow acceptance by the NRC of the conceptual approach to compliance with Appendix R. This is provided for by 10 CFR 50.48.C [6]. However, in order to meet a schedule such as was last proposed in our letter NED-84-523, dated October 19, 1984, analysis and design has in fact proceeded at our risk since the issuance of Appendix R. A significant dedication of the design resources available to GPC from its architect engineers and consultants has been made to achieve the projected compliance with Appendix R. Such resources are concurrently being employed to meet other regulatory and safety-related issues at Plant Hatch. No one requirement or safety enhancement can be considered exclusive of the total demands on available resources. In this light, GPC has assigned a high priority to compliance with Appendix R and the proposed implementation schedule has been the result.

GPC requests a timely response to our requested extension so that we may proceed on our best reasonable effort to meet the requirements of Appendix R. If further information is required, please contact this office.

Very truly yours,



L. T. Gucwa

WEB/mb

xc: J. T. Beckham, Jr.  
H. C. Nix, Jr.  
J. P. O'Reilly (NRC- Region II)  
Senior Resident Inspector