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Georgia Power

the southern electric system

NED-84-505

September 20, 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 DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
CONTAINMENT PENETRATION OVERCURRENT PROTECTION

Gentlemen:

Our submittal of August 27, 1984 proposed changes to the Hatch Unit 2 Technical Specifications to upgrade Table 3.8.2.6-1, Primary Penetration Overcurrent Protective Devices, to reflect revised electrical current requirements for newly installed motors. Pursuant to subsequent discussions with members of your staff, we hereby provide additional information in this regard:

The four affected penetrations are General Electric 100 Series Electric Penetration Assemblies using #8 size wire. Reviews of the specification sheets for this type penetration assembly indicate the following current versus time ratings:

1. Steady state current rating - 50 amps
2. Startup current rating (30 seconds) - 350 amps
3. Short circuit current rating (8 cycles or 0.133 seconds) -
3300 amps RMS asymmetrical or 2350 amps symmetrical

The affected circuit breakers listed in Technical Specifications Table 3.8.2.6-1 are Westinghouse Mark 75 HFB type molded case magnetic only (providing short circuit protection only) breakers. Reviews of manufacturer's specification sheets and characteristic trip curves for this breaker indicate an interrupt time of approximately 0.016 seconds (1 cycle), which is bounded by the 8 cycle short circuit current duration potential of the penetration as indicated above. These breakers are certified to NEMA standard ABl (1969)-Paragraphs 2.16 and 2.22.

Backup protection assuming single failures of these breakers, as required by Regulatory Guide 1.63 (October 1973), is provided by fuses located in the motor control centers.

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U. S. Nuclear Regulatory Commission
September 20, 1984
Page 2

The trip setpoints as listed in Technical Specification Table 3.8.2.6-1 are not based solely on protection of containment penetrations. The trip setpoints of the affected breakers are based on Westinghouse recommendations designed to protect cables, etc. inside containment assuming a ground fault in the motor. Westinghouse recommends setting the breaker to a current corresponding to 160 percent of the locked-rotor current of the affected motor. Since the function of the motor is lost before the breaker opens, protection of the cables is an economic consideration rather than a safety consideration. Therefore, changes to the trip setpoints have no effect on plant safety as long as they provide protection for the penetration by remaining within the current versus time limits of the penetration as discussed above.

The content of changes, safety evaluation, significant hazards evaluation, and all other information in our August 27, 1984 submittal, remain correct. This letter provides additional information to be used in the staff's evaluation of our request.

Please contact this office if you desire further information.

Very truly yours,

William E. Burns / for

L. T. Gicwa

REB/

xc: H. C. Nix, Jr.
Senior Resident Inspector
J. P. O'Reilly (NRC-Region II)