August 27, 1997

Mr. D. N Morey
Vice President - Farley Project
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO CREDIT FOR BORON FOR SPENT FUEL STORAGE - JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 (TAC NOS. M99136 AND M99137)

Dear Mr. Morey:

By letter dated June 30, 1997, you submitted a proposed amendment to the Facility Operating Licenses and Technical Specifications (TS) for Farley Nuclear Plant, Units 1 and 2, to incorporate the requirements necessary to change the basis for the prevention of criticality in the fuel storage pool. The proposed change would eliminate credit for Boraflex as a neutron absorbing material in the fuel storage pool criticality analysis.

The staff has reviewed your submittal and determined that additional information is required. The enclosure identifies the requested additional information needed.

In order to maintain a timely review, it is requested that the information be provided within 30 days of receipt of this letter. If you require any clarification regarding this request, please call me at (301) 415-2426.

Sincerely,
ORIGINAL SIGNED BY:
Jacob I. Zimmerman, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosure: Request for Additional Information

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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REQUEST FOR ADDITIONAL INFORMATION

RELATED TO CREDIT FOR BORON FOR SPENT FUEL STORAGE

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

1. The criticality analysis includes a 3-out-of-4 checkerboard configuration (Section 4.0). Why is this not included in the proposed new Technical Specifications (TS)?

2. The new fuel pit storage racks have been previously shown to meet the k_{eff} less than or equal to 0.95 under fully flooded conditions. Why is this criterion not included in TS 5.6.1.2?

3. Since the revised criticality analysis did not take credit for the Boraflex panels, should this fact be included in the Bases 3/4.7.13 and 3/4.7.14 discussion?

4. Section 6.3.2 of the criticality analysis states that the 50 ppm required for Integral Fuel Burnable Absorber (IFBA) credit is bounded by the 150 ppm required for burnup credit in the burned/fresh checkerboard configuration and, therefore, the total boron credit required remains at 350 ppm. However, if both IFBA credit for the high-enriched assembly and burnup credit for the low-enriched assemblies are taken, the total required soluble boron credit would be 400 ppm (200+150+50). Please explain.

5. Since the most reactive point in life considers both IFBA and fuel depletion, please explain what is meant by the statement in Section 6.3.3 that the fuel assembly is modeled at its most reactive point in life and no credit is taken for any burnable absorbers in the assembly in developing the k_∞ model.

Enclosure