April 11, 2001

Mr. W. R. McCollum, Jr.
Vice President, Oconee Site
Duke Energy Corporation
7800 Rochester Highway
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 RE: PROPOSED TECHNICAL SPECIFICATIONS AMENDMENT - SPENT FUEL STORAGE RACKS (TAC NOS. MB0894, MB0895, AND MB0896)

Dear Mr. McCollum:

By letter dated December 28, 2000, Duke Energy Corporation submitted a request to revise the Oconee Nuclear Station, Units 1, 2, and 3, Technical Specifications related to the administrative controls used to ensure the acceptable margins of subcriticality in the spent fuel pools (SFP) to account for Boraflex degradation. The proposed changes include credit for soluble boron in the SFP water, but do not take credit for boron remaining in the fuel storage rack Boraflex panels. Also, revisions to the SFP storage configurations, storage criteria, fuel enrichment, fuel burnup requirements, and surveillance requirements are proposed.

During our review, we have identified the need for additional information as shown in the enclosure. These questions have been discussed with Mr. Robert Douglas of your staff, and a target date of April 20, 2001, has been established for your response to them.

Sincerely,

/RA/

David E. LaBarge, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, and 50-287

Enclosure: Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION
SPENT FUEL STORAGE RACKS
OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

1. On page 6 of Attachment 6 of the submittal, it is stated that no axial effects are modeled. How are differences between 2-D and 3-D differences in burnup effects biases calculated?

2. How were the Methodology Biases and Uncertainties listed in Tables 2 - 5 of the submittal calculated?

3. It is not clear to the staff whether the boron credit analysis was performed by Westinghouse methodology (Reference 8.1 of Attachment 6 of the submittal), Duke Energy Corporation, or both?

4. Referencing page 13 of Attachment 6 of the submittal concerning reactivity equivalence: A recent study conducted at Oak Ridge National Laboratory titled ORNL/TM-2000/230, "A Critical Review of the Practice of Equating the Reactivity of Spent Fuel to Fresh Fuel in Burnup Credit Criticality Safety analyses for PWR Spent Fuel Pool Storage," and published in NUREG/CR-6683, indicates that the present process of calculating the reactivity equivalence uncertainties is non-conservative. Provide quantitative technical justification for not addressing this issue.

5. On Page 15 of Attachment 6 of the submittal, it is stated, “The revised heavy load drop analysis shows that the minimum spent fuel pool boron concentration (currently 2220 ppm) is sufficient to maintain the maximum K_{eff} ... below 0.95...”. The statement seems to indicate only that the existing concentration is sufficient to meet the criteria, but does not state the design limit. What is the minimum spent fuel pool design boron concentration necessary to maintain K_{eff} below 0.95? How will sufficient margin be assured during all plant evolutions so the boron concentration will not decrease to or below the level?

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