



Alabama Power

the southern electric system

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

Gentlemen:

Joseph M. Farley Nuclear Plant - Unit 1
Cycle 11 Reload

The Joseph M. Farley Nuclear Plant Unit 1 recently completed its tenth cycle of operation with a refueling outage that commenced on March 8, 1991. The tenth cycle of operation was completed with a cycle burnup of 16,909.7 MWD/MTU. This letter is to advise you of Alabama Power Company's review of the Farley Unit 1 Cycle 11 reload core design and plans regarding its implementation.

The Farley Unit 1 Cycle 11 core reload was designed to perform within the current design parameters, Technical Specifications and related bases, and current setpoints. A total of 32 Region-11, 61 Region-12, and 64 fresh Region-13 fuel assemblies and 720 fresh Wet Annular Burnable Absorbers (VABAs) will be inserted at the refueling outage. The Region-13 assemblies differ from the previous design in that they include the following changes: Updated Fuel Assembly Design features and Modified Debris Filter Bottom Nozzle (MDFBN). These changes are currently being used in Farley Unit 2 Cycle 8.

A detailed review of the Westinghouse Reload Safety Evaluation Report (RSER) for Farley Unit 1 Cycle 11, including all postulated events considered in the FSAR, has been completed. The RSER included a review of the Cycle 11 core characteristics to determine that the assumed values of the input parameters affecting the postulated accident analyses reported in the Farley FSAR remained bounding. Events for which previously assumed values of the input parameters were not bounding were evaluated or reanalyzed. For all such events, the results met the NRC acceptance criteria. This verification was performed in accordance with the Westinghouse reload safety evaluation methodology as outlined in the July 1985 Westinghouse topical report entitled "Westinghouse Reload Safety Evaluation Methodology" (WCAP-9273-A).

The RSER demonstrates that Technical Specification changes are not required for operation of Farley Unit 1 Cycle 11. Alabama Power Company's Plant Operations Review Committee has concluded that no unreviewed safety questions defined by 10 CFR 50.59 are involved with this reload. Therefore, based on this review, an application for amendment to the Farley Unit 1 Operating License is not required. The RSER will be reviewed by the Nuclear Operations Review Board at a later meeting.

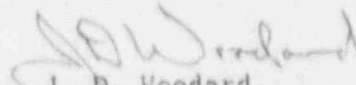
Verification of the reload core design will be performed per the standard startup physics tests normally performed for Westinghouse PWR reload cycles. These tests will include, but not be limited to, measurements of:

- (1) Control rod drop time;
- (2) Critical boron concentration;
- (3) Control rod bank worth;
- (4) Moderator temperature coefficient; and
- (5) Startup power distribution using the incore flux mapping system.

Results of these tests and a core loading map will be submitted approximately 90 days after startup of Cycle 11.

Respectfully submitted,

ALABAMA POWER COMPANY


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