

ATTACHMENT I

DESIGN FEATURES

5.6 FUEL STORAGE

CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. A K_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water, which includes conservative allowances for uncertainties and biases based on a maximum enrichment of 4.3 weight percent U-235.
- b. A nominal 10.75 inch center-to-center distance between fuel assemblies placed in the storage racks.

5.6.1.2 The new fuel pit storage racks are designed and shall be maintained with a nominal 21 inch center-to-center distance between new fuel assemblies such that K_{eff} will not exceed 0.98, based on maximum enrichment of 3.5 weight percent U-235, assuming aqueous foam moderation.

DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 149.

CAPACITY

5.6.3 The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 1407 fuel assemblies.

5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.

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ATTACHMENT II

SAFETY EVALUATION FOR FARLEY UNIT 2 SPENT FUEL POOL MODIFICATION

Background:

The spent fuel pool at Farley Unit 2 currently contains 13-inch center-to-center spent fuel storage racks. The current spent fuel storage capacity is 675 fuel assemblies per unit. Alabama Power Company plans to install high density poison spent fuel storage racks at Unit 2 prior to the first refueling outage. The installation of these racks will increase the capacity of the spent fuel pool to 1407 fuel assemblies and thus require a revision to the plant technical specifications.

References:

- (1) Technical Specification 5.6.
- (2) FSAR Sections 4.3.2.7, 9.1.2, 9.1.3, 9.1.4, 15.4.5.
- (3) NRC letter to All Power Reactor Licensees, dated April 14, 1978.
- (4) NRC letter to All Power Reactor Licensees, dated January 18, 1979.

Bases:

The attached report entitled "Joseph M. Farley Nuclear Plant Unit 2 Spent Fuel Pool Modifications" provides the bases for the proposed expansion of the spent fuel pool. The information provided in this report is consistent with the NRC guidance paper for spent fuel pool modification applications transmitted in References 3 and 4. The proposed technical specification revisions are provided in Section III of the report.

Conclusion:

The proposed expansion of the spent fuel pool and change to Section 5.6 of the technical specifications do not involve an unreviewed safety question as defined by 10 CFR 50.59 based on the fact that scoping calculations have been performed and the results of these calculations meet current NRC criteria for spent fuel storage. This conclusion will be validated upon completion of the detailed calculations to be performed prior to January 31, 1982.