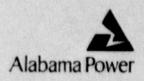
Alabama Power Company 40 Inverness Center Parkway Post Office Box 1295 Birmingham, Alabama 35201 Telephone 205 868-5581

W. G. Hairston, III Senior Vice President Nuclear Operations



January 31, 1990

the southern electric system 10CFR50.54(f)

Docket Nos. 50-348 50-364

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

Gentlemen:

Joseph M. Farley Nuclear Plant - Units 1 and 2
Potential Loss of Required Shutdown Margin During Refueling
Operations (NRC Bulletin 89-03)

On November 21, 1989 the NRC issued Bulletin 89-03, "Potential Loss of Required Shutdown Margin During Refueling Operations." This letter discusses a potential criticality concern when fuel assemblies are temporarily placed in locations other than their final analyzed positions. The NRC requested a written response from each licensee which describes the actions taken to assure that adequate shutdown margin is maintained during all refueling operations.

In response to the requested actions of NRC Bulletin 89-03, Alabama Power Company commits to complete the following items prior to entering the next refueling outage:

#### NRC Request

1. Assure that any intermediate fuel assembly configuration (including control rods) intended to be used during refueling is identified and evaluated to maintain sufficient refueling boron concentration to result in a minimum shutdown margin of approximately 5%.

# **APCo Response**

1. Analysis will be obtained that will assure that the procedural guidance provided for refueling operations will preclude an inadvertent loss of shutdown margin as defined by technical specifications due to temporary storage of fuel assemblies in intermediate locations. This analysis will apply to full core offloads which is the current refueling method used at Farley Nuclear Plant. Should another means of refueling operation be used at Farley Nuclear Plant (i.e., fuel shuffling), the provisions of this bulletin will be addressed such that assurance is provided that the allowable shutdown margin is not exceeded.

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#### NRC Request

2. Assure that fuel loading procedures only allow those intermediate fuel assembly configurations that do not violate the allowable shutdown margin and that these procedures are strictly adhered to.

# APCo Response

2. Refueling procedures will be revised to incorporate guidance that will preclude an inadvertent loss of shutdown as defined by technical specification due to temporary storage of fuel assemblies in intermediate locations.

## NRC Request

3. Assure that the staff responsible for refueling operations is trained in the procedures recommended in Item 2 above and understand the potential consequences of violating these procedures. This training should include the fundamental aspects of criticality control with higher enriched fuel assemblies.

## APCo Response

Senior reactor operators and supervisory personnel responsible for refueling operations will be trained on the procedures described above and the potential consequences of violating these procedures.

With the items listed above completed, Alabama Power Company considers this to be a full and complete response to NRC Bulletin 89-03. The information provided herein is true to the best of my knowledge and belief. If there are any questions, please advise.

Respectfully submitted,

W. S. Hanter To W. G. Hairston, III

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 31 ST DAY OF January, 1990

Sherry an Miletal

Notary Public

My Commission Expires: 12/15/92

WGH. III/BHW:md 13.02

cc: Mr. S. D. Ebneter

Mr. E. A. Reeves

Mr. G. F. Maxwell