Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 323-5341

F. L. CLAYTON, JR.
Senior Vice President

Alabama Power
the southern electric system

November 9, 1979

Docket No. 50-348

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. A. Schwencer

Joseph M. Farley Nuclear Plant-Unit No. 1
PWR Reactor Vessel Seal Ring Missile Problem

Gentlemen:

This letter is in response to your letter of October 2, 1979 requesting information on this subject as applied to the Joseph M. Farley Nuclear Plant.

As stated in our letter of March 30, 1978, the reactor cavity seal ring is in the retracted (raised) position approximately five inches above the reactor vessel flange and does not form a seal between the vessel and the cavity during reactor operation. We have evaluated the potential post-LOCA loadings on the seal ring in this configuration and have concluded that the seal ring will not become a missile from its retracted position.

The evaluation was performed by determining the jet thrust forces exiting the reactor cavity in the event of a pipe break in the cavity and assuming all thrust forces are absorbed by the seal ring. These forces were determined based on the peak pressures in the area at the top of the reactor cavity as reported in Table 6.2-11 of the FSAR. The seal ring, seal ring support, and concrete were all found capable of withstanding the applied loads without failure. Thus, the seal ring cannot become

Docket No. 50-348 November 9, 1979

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer
Page -2-

a destructive missile during continued long-term operation and poses no threat to the health and safety of the public.

Yours very truly,

F. L. Clayton, Jr.

FLCjr/TNE/mmb

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge