Mailing Address
Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 783-6081

W. L. Clayton, Jr.
Senior Vice President
Flintridge Building

Alabama Power
the southern electric system

June 18, 1982

Docket No. 50-348
50-364

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

Attention: Mr. S. A. Varga

Farley Nuclear Plant - Units 1 and 2
Fire Protection Upgrade Response to 10CFR50.48
and 10CFR50 Appendix R Requirements

Gentlemen:

Alabama Power Company previously submitted a plan and schedule, including requests for exemptions, to satisfy the requirements of 10CFR50.48 (c)(5). These actions were contained in letter dated March 19, 1981, Attachment 2 and clarified by letter dated June 23, 1981. Other exemptions were subsequently requested in letters dated January 28 and April 20, 1982.

Alabama Power Company has completed a review of the Appendix R requirements with respect to: (1) the previous commitments to complete the fire protection modifications; (2) forced outages occurring on both units; and (3) present containment fire protection measures. As a result of this review additional exemptions are required. These exemptions are specifically requested and justified in Attachments 1, 2, and 3 appended hereto.

The exemptions, pursuant to 10CRF50.12, from the applicable requirements of 10CFR50.48 and 10CFR50 Appendix R requested in the attachments can be summarized as follows:

A. Installation of modifications for both Units 1 and 2 to satisfy Section III.G.3 of Appendix R will be scheduled, on each respective unit, for an outage of sufficient duration to complete the planned modifications. This outage will follow the first refueling outage occurring at least 240 days after the NRC approval of the associated design descriptions (see Attachment 1).

B002

B. Installation of Unit 2 modifications that require a plant shutdown to satisfy Sections III.G.1, III.G.2 and lII.O of Appendix R will be scheduled for an outage of sufficient duration to complete the planned modifications occurring at least 180 days from the initial refueling outage on this unit. The initial refueling outage is currently scheduled for the last quarter of 1982 (see Attachment 2).

C. Installation of Unit 1 modifications to satisfy Section III.O of Appendix R will be scheduled for the first outage of sufficient duration to complete the planned modifications. An outage meeting these requirements is currently scheduled for March 1983 (see Attachment 2).

D. Installation of modifications to the present containment fire protection systems to satisfy III.G.2 of Appendix R can be obviated based on a more thorough review of the fire hazards in containment (see Attachment 3).

E. In the event that unforeseen circumstances occur beyond the control of Alabama Power Company, partial installation of the modifications will be implemented to the extent possible during the outage scheduled for their completion to satisfy Items A, B and C. The completion of such modifictions will then be completed during the next outage of sufficient duration to complete the modifications (see Attachments 1 and 2).

Table 1 to this letter presents the revised plan and schedule to implement the modifications necessary to satisfy the provisions of Appendix R and reflects the aforementioned exemptions. For the completion of certain activities associated with modifications that require a plant shutdown, Table 1 provides the scheduled refueling outages and anticipated outage dates during which the modifications would be implemented. Table 2 provides the anticipated outage schedule for both Units 1 and 2 and is the basis for the schedule in Table 1.

If you have any questions concerning these matters, please contact this office.

Yours very truly,

F. L. Clayton, Jr.

FLCJr/MAL:jc-D9
Attachments
cc: Mr. R. A. Thomas (w/attachments)
Mr. G. F. Trowbridge (w/attachments)
Mr. J. P. O'Reilly (w/attachments)
Mr. E. A. Reeves (w/attachments)
Mr. W. H. Bradford (w/attachemnts)

ATTACHMENT 1

Clarification of Installation Schedule for Alternative or Dedicated Shutdown Capability

In accordance with 10CFR50.48(c)(5), Alabama Power Company submitted a plan and schedule to satisfy the provisions of Appendix R in letter dated March 19, 1981, which was clarified by letter dated June 23, 1982. Attachment 2 to the March letter indicates that the complete installation of modifications to satisfy Section III.G.3 of Appendix R are scheduled for April 1, 1984 (refueling outage number five for Unit 1) and February 8, 1984 (refueling outage number two for Unit 2). These dates, as stated in that letter, were predicated upon NRC review and approval of the associated design description and were intended to provide for a sufficient duration to complete the final design and procurement and for two scheduled refueling outages to install the modifications following the NRC's approval. The basis for this schedule is as follows:

1) No final design and procurement activities would be initiated until receipt of NRC approval of the associated design descriptions.

2) Control panels and relay cabinets that interface with Class 1E components would require design, field fabrication, and seismic testing prior to installation.

3) Material deliveries of critical items, such as cable, would be expedited by initiating procurement during the initial stages of the final design.

Alabama Power Company has held discussions with the NRC Staff that indicated NRC approval of the design description may not be granted within the time period originally anticipated in the preparation of the plan and schedule provided in the March 19, 1981 letter. It is therefore necessary to clarify the Appendix R plan and schedule as shown on the attached Table 1.

Consequently, an exemption is requested, pursuant to 10CFR50.12, from the requirements of 10CRF50.48(c)(4) to allow the implementation dates for the installation of modifications for both Units 1 and 2, needed to satisfy Section III.G.3 of Appendix R to 10CFR50, be extended from the dates currently established by letter dated March 19, 1981, for each respective unit, to an outage of sufficient duration to complete the modifications that is subsequent to the first refueling outage occurring at least 240 days after the NRC approval of the associated design descriptions; or in the event that unforeseen circumstances occur beyond the control of Alabama Power Company that would allow only partial

completion of the installation of such modifications to the extent possible within the critical path of the outage scheduled for their completion, the installation of such modifications will be implemented during the next outage of sufficient duration to complete the modifications.

ATTACHMENT 2

Rescheduling of Modifications Attributed to Forced Outages

Alabama Power Company has submitted a plan and schedule identifying requested exemptions to satisfy the requirements of 10CFR50.48 (c)(5) in Attachment 2 of letter dated March 19, 1981, which was clarified by letter dated June 23, 1981. These commitment dates were predicated on the anticipated outage schedules presented in Attachment 1 of the March 19, 1981 letter. Since the establishment of these commitment dates, Units 1 and 2 have each experienced an unforeseen, forced outage.

Alabama Power Company has completed its assessment of the impact of the untimely outages concerning this subject and has determined that the Unit 2 modifications that require an outage to satisfy Sections III.G.1, III.G.2, and III.O of Appendix R can not be completed in accordance with the original schedule of the March 19, 1981 letter. For these modifications, a required contractor's walkdown was to be performed during the two-week turbine-generator inspection and maintenance outage scheduled for early April 1982. The need for this outage was precluded by the untimely Unit 2 outage occurring in late January 1982. At that time, the unplanned outage was not anticipated to be of sufficient duration to support the contractor's walkdown, and, therefore, the contractor's walkdown was rescheduled to the next scheduled outage (i.e., refueling outage number one). Since the contractor's walkdown is required in order to complete the design and initiate procurement, refueling outage number one will not be of sufficient duration to complete the walkdown as well as the final design, procurement and installation of the associated modifications. The installation of Unit 2 modifications that require an outage to satisfy Sections III.G.1, III.G.2 and III.O of Appendix R are now scheduled for an outage of sufficient duration to complete the modifications occurring at least 180 days subsequent to refueling outage number one, which is currently scheduled for the last quarter of 1982.

The basis for requiring more than one outage to complete these activities is described in Attachment 2, page 2 of letter dated March 19, 1981.

As stated in letter dated December 22, 1981, Enclosure 7, Item 13, Alabama Power Company was unable to complete the installation of Unit 1 modifications to satisfy Section III.O of Appendix R due to an unforeseen, forced outage occurring prior to the completion of the final design and procurement as scheduled in Attachment 2 of letter dated March 19, 1981. Partial installation of the planned modifications was completed based on the extent of available design and material. The remaining portions of the Unit 1 modifications to satisfy Section III.O of Appendix R are now scheduled for installation during the first outage of sufficient duration to complete the planned modifications. This outage is currently scheduled for March 1983.

Consequently, exemptions are requested, pursuant to 10CFR50.12, from the following requirements of 10CFR50.48(c)(3):

1. That the implementation dates for the installation of Unit 2 modifications that do require plant shutdown needed to satisfy Sections III.G.1, III.G.2 and III.O of Appendix R to 10CFR50 be extended from the date currently established by letter dated March 19, 1981 to an outage of sufficient duration to complete the planned modifications, occurring at least 180 days subsequent to refueling outage number one; or in the event that unforeseen circumstances occur beyond the control of Alabama Power Company that would allow only the partial completion of the installation of such modifications to the extent possible within the critical path of the outage scheduled for their completion, the installation of such modifications will be implemented during the next outage of sufficient duration to complete the modifications.

2. As previously intended by letter dated December 22, 1981 and hereby restated, that the implementation dates for the installation of modifications to Unit No. 1 needed to satisfy Section III.O of Appendix R to 10CFR50 be extended from the date currently established by letter dated March 19, 1981 to the first outage of sufficient duration to complete the planned modifications; or in the event that unforeseen circumstances occur beyond the control of Alabama Power Company that would allow only the partial completion of the installation of such modifications to the extent possible within the critical path of the outage scheduled for their completion, the installation of such modifications will be implemented during the next outage of sufficient duration to complete the modifications.

ATTACHMENT 3

Assessment of Present Containment Fire Protection Measures

Alabama Power Company has completed the design analyses of the present fire protection measures for cables and equipment located in the containments of both Units 1 and 2. Alabama Power Company has determined that these present fire protection measures are adequate to provide a reasonable assurance of fire prevention and, in the highly unlikely occurrence of a fire in the containment, to ensure limited fire damage to cables and equipment essential to bring the plant to a safe shutdown condition. Therefore, the modifications required by Appendix R would not appreciably enhance fire protection safety at the Farley Nuclear Plant.

The present fire protection measures provide safeguards against the only significant combustibles located inside the containments of Units 1 and 2 (i.e., cable insulation and reactor coolant pump lubrication oil). Transient combustibles are administratively controlled and are not found within the containments during normal operation. The assurance that such debris is not located in the containment during normal operation is provided by visual inspection required by Technical Specifications (4.5.2.c). The present fire protection measures consist of the following four entities for protection of cables and equipment located in the containment:

1. In accordance with 10CFR50 Appendix R, the reactor coolant pump oil collection systems are being upgraded to meet seismic requirements to prevent the occurrence of a fire during all normal and design basis events.

2. As provided by purchase specifications, cable is adequately designed and tested as a flame retardant to satisfy the requirements of IEEE-383-1974, Standard for Type Test of Class IE Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations. Additionally, the insulation of the cables would not be capable of sustaining combustion since protractive faulted conditions would be interrupted by protection against overcurrent conditions.

3. Administrative procedures, utilizing documented inspections, ensure that all transient combustibles are removed from the containment prior to the establishment of containment integrity during the plant startup sequence. Under normal power operation, personnel are not routinely allowed to enter the containment; and, therefore, transient combustibles are not introduced into the containment. Personnel do enter the containment in unusual instances at power; however, all transient combustibles

that are introduced into the containment are minimized, and containment areas are fully inspected for fire hazards prior and subsequent to task completion.

4. Fire fighting procedures are used by the Farley Nuclear Plant Fire Brigade to implement the use of plant fire protection systems, such as the fire hose stations located in the containment, which were installed to ensure limited fire damage to cables and equipment important to safety in the highly unlikely occurrence of a containment fire. The locations of the containment fire hose stations were selected to provide sufficient fire suppression at the electrical penetrations, pressurizer area, and outside shield wall.

Alabama Power Company has determined that these present fire protection measures employed at Farley Nuclear Plant are adequate to provide fire protection of cables and equipment essential to achieve a safe shutdown condition and satisfy the objective of Section III.G.2 of Appendix R.

Consequently, an exception is requested, pursuant to 10CFR50.12, from the requirements of Section III.G.2 of Appendix R to 10CFR50 to allow the obviation of the need for the installation of modifications for both Units 1 and 2 to the present containment fire protection measures.

TABLE 1

PLAN AND SCHEDULE FOR FIRE PROTECTION PROGRAM
10CFR PART 50.48 AND PART 50, APPENDIX R

		Design Schedule Completion Dates				Contractor Schedule Completion Dates				
10CFR50 APPENDIX R	FNP UNIT NO.	PREPARATION FOR WALKDOWN	WALKDOWN	ANALYSIS OF WALKDOWN	DESIGN AND CONTRACTOR SELECTION	PREPARATION FOR WALKDOWN	WALKDOWN	SUBMITTAL OF DESIGN DESCRIPTION	FINAL DESIGN AND PROCUREMENT	INSTALLATION COMPLETE
III.G.2 (and III.G.1)	1 no outage required	5-1-81	6-1-81	8-1-81	9-1-81	10-1-81	11-1-81	N/A	12-1-81	5-1-82
	1 outage required	11-1-81	3-1-82	8-1-82	9-1-82	12-1-82	Refueling Outage No. 4 (03-21-83)#	N/A	8-1-83	Refueling Outage No. 5 (4-1-84)#
	2 no outage required	4-1-81	6-1-81	5-15-82	6-15-82	7-1-82	7-15-82	N/A	9-1-82	2-8-83
	2 outage required	4-1-81	6-1-81	3-1-82	4-1-82	9-15-82	Refueling Outage No. 1 (11-29-82)#	N/A	6-1-83	Refueling Outage No. 2 (12-12-83)#
III.G.3	1	11-1-81	3-1-82	8-1-82				7-1-82	Eight months* following NRC approval	Second outage* following NRC approval
	2	4-1-81	6-1-81	5-15-82				7-1-82	Eight months* following NRC approval	Second outage* following NRC approval
III.O	1								10-1-81	Refueling Outage No. 4 (03-21-83)#
	2		N/A			N/A			9-1-83	Refueling Outage No. 2 (12-12-83)#

* Predicated upon NRC review/approval of the design description and integration into scheduled outages.

#The dates in parenthesis reflect the current outage schedule provided in Table 2.

TABLE 2

Anticipated Outage Schedule for Farley Nuclear Plant

	Refueling Outage Number					
FNP Unit No.	One	Two	Three	Four	Five	Six
1				Jan. 21 to March 21, 1983	Feb. 3 to March 19, 1984	Sept. 6 to Oct 21, 1985
2	Oct. 15 to Nov. 29, 1982	Oct. 28 to Dec. 12, 1983	April 26 to June 10, 1985	Oct. 3 to Nov. 17, 1986		