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Senior Vice President
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Alabama Power

the southern electric system

March 4, 1983

Docket Nos. 50-348
50-364

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

Attention: Mr. S. A. Varga

Joseph M. Farley Nuclear Plant - Units 1 and 2
Technical Specification Amendment to T.S. 3/4.1.3
Movable Control Assemblies

Gentlemen:

Technical Specification 3.1.3.1.b requires that "...with more than one full length rod inoperable or misaligned from the group step counter demand position by more than + 12 steps (indicated position), be in HOT STANDBY within 6 hours." A change is requested to allow POWER OPERATION in the event that more than one rod is inoperable due to a Rod Control System problem provided that the rod position of all rods can be verified to be within + 12 steps (indicated position) from the group step counter demand position and its safety related function (i.e., trip capability) is intact. Even with a Rod Control System problem, the rods can be tripped to shutdown the reactor.

In addition to the trip capability, another important function of the control assemblies involves core flux distribution and shaping. This additional function is assured by compliance with Technical Specification Sections 3.2.1, 3.2.2 and 3.2.3. The proposed Technical Specification change would allow repair of the non safety-related portion of the Rod Control System at power during situations in which trip capability is intact and rod position (within + 12 steps of the demanded position) can be verified. This condition has been experienced three times at the Farley Nuclear Plant, one of which required NRC approval of an emergency technical specification change. In all three cases adequate rod position and trip capability were maintained.

The proposed changes have been reviewed by Alabama Power Company's Plant Operations Review Committee and it has been concluded that the proposed changes do not involve an unreviewed safety question. A detailed safety evaluation is contained in Attachment 1 and the proposed Technical Specification changes are contained in Attachment 2. The Nuclear Operations Review Board will review this proposed change at a future meeting.

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Approved 1/40
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Mr. S. A. Varga
Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission

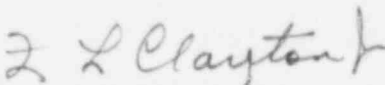
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NRC approval of these proposed changes is requested by September 1, 1983.

This amendment is designated Class III for Unit 1 and Class I for Unit 2 in accordance with 10 CFR 170.22 requirements. Enclosed is a check for \$4,400.00 to cover the total amount of fees required.

In accordance with 10 CFR 50.30(c)(1)(i), three signed originals and forty (40) additional copies of the proposed changes are enclosed.

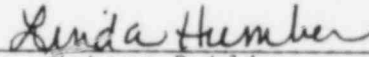
Yours very truly,


F. L. Clayton, Jr.

FLCJr/JAR:jc-D32
Attachments

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. J. P. O'Reilly
Mr. E. A. Reeves
Mr. W. H. Bradford

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 4th DAY OF March, 1983.


Notary Public

My Commission Expires:

1-10-87

ATTACHMENT 1

Safety Evaluation for Proposed Changes To The FNP-1 and 2 Technical Specifications

I. BACKGROUND

Technical Specification 3.1.3.1.b requires that "...with more than one full length rod inoperable or misaligned from the group step counter demand position by more than + 12 steps (indicated position), be in HOT STANDBY within 6 hours." A change is requested to allow POWER OPERATION in the event that more than one rod is inoperable due to a Rod Control System problem provided that the position of all rods can be verified to be within + 12 steps (indicated position) from the group step counter demand position and its safety related function (i.e., trip capability) is intact. Even with a Rod Control System problem, the rods can be tripped to shutdown the reactor.

In addition to the trip capability, another important function of the control assemblies involves core flux distribution and shaping. This additional function is assured by compliance with Technical Specification Sections 3.2.1, 3.2.2 and 3.2.3. The proposed Technical Specification change would allow repair of the non safety-related portion of the Rod Control System at power during situations in which trip capability is intact and rod position (within + 12 steps of the demanded position) can be verified. This condition has been experienced three times at the Farley Nuclear Plant one of which required NRC approval of an emergency technical specification change. In all three cases adequate rod position and trip capability were maintained.

II. REFERENCES

FNP-1 Technical Specifications
FNP-2 Technical Specifications

III. BASES

The Farley Rod Control System consists of two Shutdown Banks (A & B) and four Control Banks (A, B, C and D) each with two groups of four rods. During normal power operation, all banks except Control Bank D are fully withdrawn. Control Bank D is slightly inserted for power shape control purposes. Each rod drive mechanism within the Rod Control System has three electromagnetic coils. Movement of the control rods is controlled by the Rod Control System which sequentially energizes and deenergizes these coils. Loss of energization, which is activated by the Reactor Trip System, will cause the control rods to drop by gravity into a fully inserted position and shut down the reactor. The Control Rod System is described in FSAR Section 7.7.

The Farley Rod Position System consists of two independent systems that provide position indication of the control rods in the reactor. One system determines and displays the demanded rod position. The other system detects and displays the actual position of the rod drive shaft inside the pressure housing by the change in magnetic coupling between the coil windings outside the pressure housing. These two systems provide a means of verifying the actual rod position independent of the Rod Control System.

Therefore, if the capability to operate the individual control rods in manual or automatic is lost, at no time will the Reactor Trip System's ability to trip the reactor be negated nor will the ability to determine rod position be lost. The capability to trip constitutes the safety related system function.

IV. CONCLUSION

Alabama Power Company hereby requests the proposed Technical Specification changes contained in Attachment 2. These proposed changes do not involve an unreviewed safety question as defined by 10 CFR 50.59.