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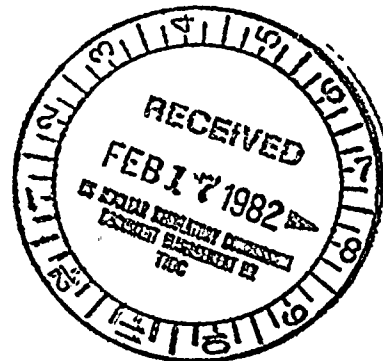
Docket File
NRC PDR
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Docket Nos. 50-260
and 50-296

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Gray File
CBerlinger, CPB
ORB#2 Rdg

FEB 9 1982



Mr. Hugh G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

Re: Browns Ferry Units 2 and 3

Reference is made to your letter of September 21, 1981 (TVA BFNP TS 167) requesting changes to the Browns Ferry Technical Specifications regarding the APRM flow biased setpoints. In order to complete our review, we need the additional information identified in the enclosure to this letter. Since there is no safety concern operating with the present Technical Specifications and since we recognize that you may have to obtain technical input outside TVA, the suggested response date is at your convenience.

This request for information applies only to one company (TVA) and is necessary to accommodate an action requested by TVA. Accordingly, OMB clearance is not required for this request under P.L. 96-511.

Sincerely,

ORIGINAL SIGNED BY

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure:
Request for Additional
Information

cc w/enclosure:
See next page

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DS 2/9/82

CLB

OFFICE	ORB#2:DL	ORB#2:DL	C-CPB:DSI	C-ORB#2:DL			
SURNAME	SNorris	DClark	CBerlinger	DVassallo			
DATE	2/4/82	2/4/82	2/5/82	2/9/82			



Mr. Hugh G. Parris

cc:

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REQUEST FOR ADDITIONAL INFORMATION
FLOW BIASED SCRAM AND ROD BLOCK LIMITS
BROWNS FERRY UNIT NOS. 2 AND 3
DOCKET NOS. 50-260 AND 50-296

In your application of September 21, 1981 (TVA BFNP TS 167), you proposed changes to the Browns Ferry Units 2 and 3 Technical Specifications regarding the equations involving the fraction of rated thermal power (FRP) to core maximum fraction of limiting power density (CMFLPD). One of the proposed changes is to move these equations without changes from Section 2.1 (Fuel Cladding Integrity-Limiting Safety System Settings) to Section 3.5 of the Technical Specifications as a Limiting Condition for Operation. This is consistent with the BWR Standard Technical Specifications and is acceptable. We note, however, that you propose to delete the bases for these equations from Sections 1.1 and 4.1 and that these bases are not proposed to be included elsewhere.

You have also proposed to modify the required corrective action when the CMFLPD exceeds unity. At present, you are required to initiate action within 15 minutes to restore operation within prescribed limits and to restore the plant within limits within two hours or reduce thermal power to less than 25%. This is the same requirement as in the BWR Standard Technical Specifications. You have proposed that six hours be allowed to restore the plant within limits. Since these limits primarily come into play during startup, the normal movement of control rods should restore the plant within limits within six hours without any other specific action being taken.

We generally agree with the proposed change in the Technical Specifications but need additional supporting and background information to prepare an adequate written Safety Evaluation. You point out that under the old minimum critical heat flux ratio correlations, the peaking factor adjustment to the flow biased scram and rod block equations had relevance to maintaining core limits in certain flow excursion transients. As we understand it, the peaking factor was put in because of a localized phenomenon in the Henschel-Levy heat transfer correlation. Now that the correlations are based on bundle power effects, the peaking factor adjustment has lost some of its safety significance, because power in a single rod is no longer critical. In any of the Safety Evaluations we prepare supporting an amendment, we have to conclude that there is not a significant hazards consideration based on the conclusion that there is not a significant decrease in a safety margin. As indicated above, we are fairly certain this is the case or else we would have prenoticed your application. But to reach this determination, we need:

1. A discussion of the differences between the two departure-from-nuclear-boiling heat transfer correlations-Henschel-Levy and GETAB-GEXL.
2. Identification of pertinent thermal limits and a discussion of why the change in thermal limits justifies a longer time to take corrective action (or possibly justification why the limits can be removed from the Technical Specifications).

3. A discussion of why the system is adequately protected by the 120% fixed scram in the absence of any peaking factor adjustment and that the calibration techniques used in setting the APRM scram trip settings (under high APRM Gain Adjustment Factor) insure that the 120% setpoint is not exceeded.
4. The bases for these limits in the Technical Specifications, if you propose to retain the equations as a limiting condition for operation (as in your submittal).



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