



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

ENCLOSURE 4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 197 TO FACILITY OPERATING LICENSE NO. DPR-33  
AMENDMENT NO. 214 TO FACILITY OPERATING LICENSE NO. DPR-52  
AMENDMENT NO. 170 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1.0 INTRODUCTION

By letter dated August 20, 1992, as supplemented April 30, 1993, the Tennessee Valley Authority (TVA, the licensee) submitted a request for changes to the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3 Technical Specifications (TS). The requested changes would remove existing cycle-specific parameter limits and replace them with a reference to the BFN Core Operating Limits Report (COLR). The proposed TS changes would also add a definition of the COLR and incorporate administrative controls in accordance with the guidelines of Generic Letter (GL) 88-16, "Removal of Cycle-Specific Parameter Limits From Technical Specifications," dated October 4, 1988. The letters dated April 30, 1993 and May 17, 1993, proposed minor supplemental TS changes in accordance with GL 88-16, and additional clarifications, which did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

TVA's proposed changes to the TS, in accordance with the guidance provided by GL 88-16, are discussed below:

- (1) The Definitions section of the TS was revised to include a definition of the COLR that requires cycle/reload-specific parameter limits to be established on a unit-specific basis in accordance with NRC-approved methodologies that maintain the limits of the safety analysis. This definition notes that plant operation within these limits is addressed by individual specifications.
- (2) The following specifications were revised to replace the specific values of cycle-specific parameter limits with a reference to the COLR, which is where these specific values will reside in the future.

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(a) Specification 3.5.I

The Average Planar Linear Heat Generation Rate (APLHGR) limit for this specification is specified in the COLR.

(b) Specification 3.5.J

The Linear Heat Generation Rate (LHGR) limit for this specification is specified in the COLR.

(c) Specification 3.5.K/4.5.K

The Minimum Critical Power Ratio (MCPR) limits and the MCPR flow adjustment factor (Kf) for this specification are specified in the COLR.

(d) Specification 2.1.A.1.b

LHGR and MCPR shall be within the limits of Specifications 3.5.J and 3.5.K, respectively.

(e) Tables 3.5.I-1 through 6, Unit 1; 3.5.I-1 through 4, Unit 2; 3.5.I-1 through 7, Unit 3; and Figures 3.5.K-1 and 3.5.2

MAPLHGR Tables, and Figures on MCPR Limits and Kf, are deleted.

The licensee also proposed changes to the applicable TS Bases (i.e., 2.1, 2.1.B, 2.1.L, 3.3/4.3 B.5, and 3.5.L) of the aforementioned specifications. These were also reviewed by the staff.

- (3) Specification 6.9.1.7 would be added to include the COLR under the reporting requirements of the Administrative Control section of the TS. This specification requires that the COLR be submitted, upon issuance, to the NRC; which according to GL 88-16 includes the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector. The COLR provides the values of cycle-specific parameter limits that are applicable for the current fuel cycle. Specification 6.9.1.7 also requires that NRC-approved methodologies be used in establishing the values of these limits for the relevant specifications and that the values be consistent with all applicable limits of the safety analysis. The approved methodology, as proposed in TS 6.9.1.7.b and Bases 2.1, for determining core operating limits is described in "NEDE-24011-P-A, 'General Electric Standard Application for Reactor Fuel' (latest approved version)."

Furthermore, TS 6.9.1.7 will require that all changes in cycle-specific parameter limits be documented in the COLR before each reload cycle, or remaining part of a reload cycle, and submitted upon issuance to the NRC, prior to operation with the new parameter limits.



Based on a review of the licensee's requests dated August 20, 1992, and April 30, 1993, the NRC staff determined that TVA's proposed TS changes to remove the specific values of certain cycle-dependent parameters from the TS and place these values in a COLR referenced by the specifications conforms with the guidance of GL 88-16. Since plant operation continues to be limited in accordance with the values of cycle-specific parameter limits established by NRC-approved methodologies, the NRC staff concludes that the proposed TS changes have no adverse impact on plant safety. Therefore, the staff concludes these TS changes, and associated Bases changes, are acceptable.

TVA also proposed editorial changes for several TS (including Bases) such as: Definitions 1.N and 1.U.3; Bases 2.1, 3.5.I, 3.5.J, 4.1, and 4.5; and TS Surveillance Requirements 4.5.I, and 4.5.J. The staff reviewed these editorial changes and concluded they were acceptable.

The TS changes proposed by TVA for Sections 5.2.A and 5.2.B, which prescribe major design features of the reactor, will be addressed by another safety evaluation (SE). This SE will be issued under separate correspondence.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Alabama State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, and change surveillance requirements. The amendments also change recordkeeping, reporting, or administrative procedures or requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (57 FR 48828). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: May 20, 1993

