



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

ENCLOSURE 4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO.186 TO FACILITY OPERATING LICENSE NO. DPR-33
AMENDMENT NO.199 TO FACILITY OPERATING LICENSE NO. DPR-52
AMENDMENT NO.158 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 September 13, 1991, the Tennessee Valley Authority (TVA) submitted a request for changes to the Browns Ferry Nuclear Plant (BFNP), Technical Specifications (TS). The requested changes would extend the logic system functional test (LSFT) surveillance interval from "once every 6 months" to "once every 18 months" for the Common Accident Signal Logic, 4 kV Shutdown Board Undervoltage Start of the Diesel Generator, 480V Load Shedding Logic, and RHR Service Water Initiation Logic. TVA considers this change to be similar to TS changes previously evaluated and approved by the staff on February 12, 1988 as License Amendments 144, 140, and 115 for BFNP Units 1, 2, and 3, respectively. As such, the LSFT surveillance interval changes proposed by TVA's September 13, 1991 application should be within the bounds of the staff's previous safety evaluation.

2.0 EVALUATION

Present TS require a six-month surveillance interval for the aforementioned LSFTs. Since the duration of a fuel cycle is 18-24 months, a surveillance interval of six months requires performing LSFTs during power operation. In general, the performance of LSFTs at power is undesirable because of the potential for inadvertent scrams, actuations of equipment and unexpected transients which place unnecessary demands on safety systems. Furthermore, the numerous temporary alterations required to perform these complex tests place the plant in a configuration which increases system restoration time and reduces the redundancy of protection. The proposed TS changes will permit performing LSFTs during unit shutdown.

TVA's proposed extension of the surveillance interval for certain LSFTs is consistent with the guidelines established by the staff in the Standard TSs (i.e., NUREG-0123) for Boiling Water Reactors (BWR). Furthermore, it was only because of an oversight by TVA that the subject LSFTs were not included as part of the TS changes approved previously by the staff in License Amendments 144, 140 and 115.

Defining appropriate surveillance intervals is an important element in achieving high levels of availability for the Reactor Protection System (RPS) and the plant's Engineered Safeguard Features (ESF). As a result of extensive efforts by General Electric and the NRC staff to resolve concerns expressed in Item 4.5.3 of Generic Letter 83-28 regarding RPS reliability, the TS surveillance intervals established in NUREG-0123 were reviewed and determined to be adequate. Since TVA's requested TS revisions for BFNP are consistent with the Standard TS for BWRs, the staff concludes that they are acceptable. Furthermore, extending the surveillance interval for these particular LSFTs should reduce equipment wear, increase system availability and minimize situations where the plant is placed in abnormal configurations.

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 amendment changes a surveillance requirement. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (56 FR49927). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

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.

Principal Contributor: T. Ross

Date: November 4, 1991

