



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. DPR-33
AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NO. DPR-52
AMENDMENT NO. 60 TO FACILITY OPERATING LICENSE NO. DPR-68
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT, UNIT NOS. 1, 2 AND 3
DOCKET NOS. 50-259, 50-260 AND 50-296

1.0 Introduction

By letter dated March 25, 1983 (TVA BFNP TS 186) the Tennessee Valley Authority (the licensee or TVA) requested amendments to Facility Operating License Nos. DPR-33, DPR-52 and DPR-68 for the Browns Ferry Nuclear Plant, Unit Nos. 1, 2 and 3. The application by TVA was in response to a request by the NRC staff on March 11, 1983 to provide revised Technical Specifications for Browns Ferry Unit 2 with more stringent requirements on unidentified leakage in the drywell. The requested changes were the same as those in the BWR Standard Technical Specifications. During the refueling and modification outage of Unit 2, which extended from July 30, 1982 to March 18, 1983, TVA found indications of cracks in two of the ten sweep-o-let to manifold welds in the recirculation system. TVA proposed to operate in Cycle 5 with these two indications. We performed an independent materials and fracture mechanics evaluation and concluded that operation throughout the next cycle with these indications was acceptable but that certain additional compensatory measures were warranted, such as more stringent requirements on unidentified leakage.

2.0 Discussion

The staff requested TVA to submit a change to the Technical Specifications limiting the rate of increase for unidentified drywell leakage to 2 gallons per minute (gpm) in a 24-hour period. This is the same requirement that is in the BWR Standard Technical Specifications (NUREG-0123, Rev. 3). The requested change was submitted by TVA's letter of March 25, 1983. On March 4, 1983, IE Bulletin 83-02 was issued requiring augmented inservice inspection of recirculation and residual heat removal system piping for BWRs shutting down for refueling after February 1983.

Inspections performed in accordance with this Bulletin revealed indications of pipe cracks in most facilities. As a result, the staff concluded that even more enhanced surveillance of possible leakage was warranted. Specifically, the staff proposed that the frequency for checking the leakage rate be increased once per day to once per shift and that the allowable period for plant operation without the leakage monitoring systems

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in operation be reduced from 7 to 3 days. TVA subsequently imposed these limits administratively on all three Browns Ferry units. Similar limits on unidentified leakage have been incorporated in the Technical Specifications for numerous BWRs during the past year. The NRC staff proposed these additional surveillance requirements to TVA as a supplement to the March 25, 1983 submittal. The additional changes were accepted by the TVA staff, and, as noted above, were administratively imposed voluntarily by TVA. Thus, the changes to the Technical Specifications encompassed by these amendments are already in effect. However, since Browns Ferry Unit 1 will be returning to power in Cycle 6 in the near future with nine unrepaired welds, the staff has determined that the changes should be incorporated in the Technical Specifications by amendments.

3.0 Environmental Considerations

We have determined that these amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that these amendments involve an action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

4.0 Conclusion

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: December 27, 1983