



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS

SUPPORTING AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 68 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By letter dated June 13, 1988, the Tennessee Valley Authority (TVA or the licensee) requested a change in the Sequoyah (SQN) Units 1 and 2 Technical Specifications (TS) relating to test requirements of the turbine-driven auxiliary feedwater pumps (TDAFWP). Specifically, the proposed change involves a modification of TS surveillance requirement (SR) 4.7.1.2.b to omit the applicability of TS 4.0.4 to the TDAFWP, thereby allowing entry into Mode 3 to conduct the response time and actuation signal testing required by TS SR 4.7.1.2.b. In association with this proposed TS revision, the licensee proposed editorial changes to Table 3.3-5 and SR 4.7.1.2.b.2.

The changes to the TS are the following:

1. A footnote is being added to Table 3.3-5,
2. A footnote is being added to Surveillance Requirement (SR) 4.7.1.2.b,
3. An outdated footnote is being deleted from Table 3.3-5, and
4. The wording of Unit 2 SR 4.7.1.2.b.2 is revised.

2.0 EVALUATION

The reason for the proposed changes related to the test requirements of the TDAFWP is that the licensee has been unable to establish the plant conditions needed to conduct the necessary testing within the required period of testing specified in the TS. Specifically, the response time and actuation signal testing for the TDAFWP is required to be performed every 18 months. In order to operate the turbine at rated conditions, and thus measure its start-up response time, the secondary steam system must be able to supply steam at 842 psig. To establish this pressure in the steam generators, the reactor coolant system must be at a temperature of 525 degrees F, resulting in the necessity of the reactor plant to be in Mode 3 to perform the required testing. SQN 1 and 2 has been in cold shutdown (Mode 5) for over two years and this testing could not be conducted.

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The staff addressed the safety concern associated with the proposed change: Will not having a fully tested automatic start capability for the TDAFWP upon entering Mode 3 have an adverse impact on safety?

The staff has reviewed the SQN accident analyses, and agrees with the licensee that the proposed change does not reduce the overall system requirements for the TDAFWP. This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Further, staff analysis showed that the proposed change to the TS would not create the possibility of a new or different kind of accident from any previously analyzed, nor does the change involve a significant reduction of a margin of safety. These were addressed by the staff in its Notice of Consideration of Issuance of this application in the Federal Register (June 29, 1988, 53 FR 24519).

The above conclusions are supported by the fact that the monthly operability test run of the TDAFWP, required by surveillance requirement 4.7.1.2.a.2, is exempted from the requirements of TS 4.0.4 for entry into Mode 3 in order to allow the performance of the test run with sufficient steam pressure available to operate the turbine at rated conditions. In this case, the AFW system would be at a partial capability upon entering Mode 3, because the two motor driven AFW pumps are required to be fully tested prior to entering Mode 3. It should be noted that TS 3.7.1.2 requires three operable AFW pumps in Modes 1, 2 and 3.

Finally, the staff considered this proposed change in light of NRC Generic Letter 87-09, which solicited Technical Specification change proposals from licensees to modify TS 3.0.4, 4.0.3 and 4.0.4. The specific application of the guidance of Generic Letter 87-09 to this proposed change would result in the requirement to conduct the time response and actuation signal testing within 24 hours of entering Mode 3. The licensee's implementation of the provisions of GL 87-09 in the SQN 1 and 2 TS is pending before the staff at this time.

The staff identified no safety concerns related to the two proposed editorial changes to the SQN 1 and 2 TS. One change proposed the deletion of outdated footnotes from Table 3.3-5 for both SQN 1 and 2; these footnotes identified schedule requirements for plant modifications that had been completed. The other editorial change proposed revising the wording consistent with the corresponding wording in the SQN 1 TS and the Westinghouse Standard Technical Specifications (STS).

Therefore, based on the above, the staff finds that the proposed changes to the Sequoyah 1 and 2 TS are acceptable. Although TVA proposed a footnote number 13 for Table 3.3-5, footnote number 11 is being used because it is the next footnote for the Table.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve administrative changes and changes to surveillance requirements and to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need 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 nor to the health and safety of the public.

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Dated: August 5, 1988