UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENCLOSURE 3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 176 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 167 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 application dated March 10, 1993, the Tennessee Valley Authority (the licensee) proposed an amendment to the Technical Specifications (TS) for Sequoyah Nuclear Plant (SQN) Units 1 and 2. The requested changes would add a reference to the test requirements of 10 CFR Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors" to the technical specifications at various locations, and remove the corresponding detailed test requirements and acceptance criteria. The licensee indicated that SQN TS 3.6.1.1 and TS 3.6.1.2 currently contain detailed containment leakage rate requirements, test requirements, test schedules, and test accuracies that are also required by 10 CFR Part 50, Appendix J. The proposed changes will remove the duplicate 10 CFR Part 50, Appendix J requirements from the TS. In addition to the specific changes, three other related TS, 4.6.1.6, 4.6.1.7 and 4.6.1.9.3 are being revised to remove references that will no longer be applicable. The licensee also proposed a change to a footnote in TS Table 3.6-2, "Containment Isolation Valves," that would clarify the additional testing requirements for the containment purge valves and correct an oversight from a previous TS change.

A supplemental letter dated January 31, 1994, supplied clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The licensee has proposed the following specific changes:

a. Revise definition for containment integrity (Definition 1.7, Item d) - Item d references the current TS 3.6.1.2 that governs containment leakage rate criteria. Proposed changes to TS 3.6.1.2 would revise Item d to reference the 10 CFR Part 50, Appendix J, containment leakage rate criteria that are provided by reference in TS 3.6.1.1.

By letter dated January 31, 1994, the licensee proposed that a more appropriate reference is Specification 4.6.1.1.c, which contains the surveillance testing criteria, rather than 10 CFR 50, Appendix J. In addition, the containment integrity definition was expanded to include the secondary containment bypass leakage limit of Specification 3.6.1.2. These proposed changes clarify the intent of the TS requirements.

b. Revise Surveillance Requirement (SR) 4.6.1.1.c - This SR currently contains leak rate criteria for Type B and C penetrations. The Type B and C penetration leak rates are governed by 10 CFR Part 50, Appendix J. The licensee proposed to revise the SR to be consistent with standard requirements from NUREG-1431, "Standard Technical Specifications Westinghouse Plants."

By letter dated January 31, 1994, the licensee determined that in order to clarify the leak rate testing surveillance requirement, this step should also indicate that the testing is performed at the P_a pressure specified in 10 CFR Part 50, Appendix J.

c. Revise Limiting Condition for Operation (LCO) 3.6.1.2 - This LCO currently limits containment leakage rates in three categories: (a) overall integrity leakage rate, (b) combined leakage for Type B and C tests, and (c) combined leakage for secondary containment bypass leakage rates to the auxiliary building. The LCO would be revised to limit applicability to secondary containment bypass leakage rates (Category (c) only).

d. Delete LCO 3.6.1.2.a - This LCO currently limits the overall integrated containment leakage rate to less than or equal to a maximum allowable leakage rate (L_a). The 10 CFR 50, Appendix J test requirement referenced in SR 4.6.1.1.c maintains and governs the L_a limit.

e. Delete LCO 3.6.1.2.b - The LCO currently limits the containment combined leakage rate to less than or equal to 0.60 L_a for all penetrations and valves subject to Type B and C testing. The 10 CFR 50, Appendix J test requirements referenced in SR 4.6.1.1.c maintain this 0.60 L_a limit.

f. Revise LCO 3.6.1.2.c - The LCO currently limits the containment bypass leakage rate to less than or equal to 0.25 L_a. The secondary containment bypass leakage paths to the auxiliary building are specific to SQN and are not addressed by 10 CFR 50, Appendix J; therefore, this LCO is being retained under LCO 3.6.1.2.

g. Revise Action Statement for LCO 3.6.1.2 - The action statement for this LCO currently contains actions associated with three categories: (a) overall integrated leakage rate, (b) combined leakage rate for Type B and C penetrations, and (c) combined leakage for secondary containment bypass leakage paths to the auxiliary building. The licensee proposed reformatting this action statement to reflect its applicability to Category (c) only. Action requirements for Categories (a) and (b) are governed by 10 CFR Part 50, Appendix J (refer to SR 4.6.1.1.c).

h. Delete SR 4.6.1.2 (Items a, b, c, f, h, and i) - These SR items are associated with containment leakage rate criteria, test schedules, and accuracy requirements that are governed by 10 CFR Part 50, Appendix J. Items e, g, and j are associated with combined bypass leakage rates to auxiliary building and would be retained in the TS since they are not governed by Appendix J.

By letter dated January 31, 1994, the licensee proposed that a footnote be added that references Specification 4.6.1.2. The footnote would indicate that the results of the secondary containment bypass leakage tests shall be evaluated against the acceptance criteria of Specification 4.6.1.1.c in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions. The intent of this proposed change is to clarify the acceptance criteria.

i. By letter dated January 31, 1994, the licensee proposed that a clarification to the containment air lock operability surveillance requirement in SR 4.6.1.3.b should be incorporated by inserting a reference that indicates the results of the tests shall be evaluated against the acceptance criteria of Specification 3.6.1.3.b, in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions.

j. Revise SR 4.6.1.6 and 4.6.1.7 - These SRs currently reference SR 4.6.1.2 for Type A containment leakage rate testing. This reference would no longer be applicable with implementation of the proposed changes to SR 4.6.1.2. The references would be changed to SR 4.6.1.1.c.

k. Revise SR 4.6.1.9.3 - This SR currently references SR 4.6.1.2.d, which would no longer be applicable with the proposed deletion of SR 4.6.1.2.d.

By letter dated January 31, 1994, the licensee proposed that this SR be clarified by indicating that the results shall be evaluated against the acceptance criteria of SR 4.6.1.1.c in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions.

l. Revise footnote (*) to Table 3.6-2 - A reference to SR 4.6.3.4 is no longer applicable for defining the leakage limit on purge valves. The leakage limits for purge valves are governed by SR 4.6.1.9.3. Leakage limits for valves in Table 3.6-2 are also governed by 10 CFR Part 50, Appendix J. Therefore, the licensee proposed to revise the footnote accordingly. However, by letter dated January 31, 1994, the licensee indicated that a more appropriate reference than 10 CFR 50, Appendix J. is the specification itself, SR 4.6.1.1.c.

m. Revise Bases 3/4.6.1 - The proposed bases change would incorporate the NUREG-1431 wording to reflect 10 CFR Part 50, Appendix J leakage limits and acceptance criteria.

n. Revise Bases 3/4.6.1.2 - The proposed bases change would incorporate the secondary containment bypass leakage limitations.

The staff has reviewed the licensee's proposed TS changes as discussed above. The licensee's proposed TS changes continue to require that the containment integrity be maintained in accordance with 10 CFR Part 50, Appendix J. We find that the determination of containment leakage rates and offsite doses following an accident are not affected. SQN's current acceptance criteria governing containment leakage test limits (0.75 L_a for periodic Type A testing and 0.60 L_a for Types B and C testing) remain unchanged. Detailed test requirements, test schedules, and test accuracies that are being deleted from TS will remain governed by reference to 10 CFR Part 50, Appendix J. The proposed amendment does not affect the individual TS leakage rates associated with containment air lock, purge valves, or secondary bypass leakage to the auxiliary building, since these leakage rate limits are not specifically part of the acceptance criteria of 10 CFR Part 50, Appendix J. These individual leakage limits remain unchanged and are retained in TS. All other proposed changes are clarifications, including the revised wording for the footnote to TS Table 3.6-2 and those proposed by letter dated January 31, 1994. These clarifications do not impact the intent of the affected specifications and are administrative in nature. The proposed changes are considered to be a TS improvement, are consistent with the guidance contained in the NUREG-1431 and will not affect SQN's containment leakage test criteria, system conditions, plant configuration, and accident analysis. Making these changes now will reduce the potential for future TS changes and exemptions.

Based on the above evaluation, the staff concludes that the proposed changes to Sequoyah's Technical Specifications and its associated Bases for primary containment integrity to delete detail containment test requirements that are governed by 10 CFR Part 50, Appendix J, and other administrative clarifications are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee 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 requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and to the surveillance requirements. 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 (58 FR 28059). 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.

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Dated: February 10, 1994