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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST FOR THE IMPLEMENTATION

OF 10 CFR 50.55a REQUIREMENTS RELATED TO

REPAIR AND REPLACEMENT ACTIVITIES FOR CONTAINMENT

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

INTRODUCTION

In Federal Register Notice No. 154, Volume 61, dated August 8, 1996, the Nuclear Regulatory Commission amended its regulations to incorporate, by reference, the 1992 Edition of Subsections IWE and IWL of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (the Code)into 10 CFR 50.55a, "Code and Standards." Specifically, 10 CFR 50.55a(b)(2) and 10 CFR 50.55a(g)(6)(ii)(B) were added to the regulations. These Code subsections provide the requirements for inservice inspection (ISI) of Class CC (concrete) and Class MC (metallic) containments of light-water reactors. The effective date of the amended rule was September 9, 1996, and has accelerated implementation provisions such that licensees are to incorporate the requirements into their ISI program and complete the first containment inspection within five years of the effective date. In addition, any repair or replacement activity to be performed after the effective date must be in accordance with the respective requirements of Subsection IWE or IWL. However, a licensee may submit a request for relief from the implementation date of the amended rule.

Alternatives to Code requirements may be used by nuclear licensees when authorized by the Commission if the proposed alternatives to the requirements are shown to provide an acceptable level of quality and safety [10 CFR 50.55a(a)(3)(i)], or if compliance with the Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety [10 CFR 50.55a(a)(3)(ii)].

EVALUATION

The Tennessee Valley Authority (TVA, the licensee), in a letter dated February 10, 1997, citing hardship and/or difficulty without a compensating increase in quality or safety above that provided by current programs, requested relief for its Sequoyah Nuclear Plant from the implementation date

ENCLOSURE

of the amended 10 CFR 50.55a until September 7, 1997. The licensee plans to make improvements to several containment penetrations during a Unit 1 scheduled refueling outage beginning March 22, 1997. Given the accelerated implementation schedule of the rule and the immediate effective date for repair and replacement activities, the immediate implementation of repair and replacement requirements would demand licensee action in a short period of time. This would result in hardship and/or difficulty without an increase in quality or safety above current programs.

There are no known safety concerns with the containments of Sequoyah Units 1 and 2 which would compromise their ability to perform their intended safety functions. All improvements are to be performed in accordance with the scope of the current containment ISI and repair and replacement program, which is based on the 1989 Edition of the ASME Code. The licensee has developed an interim quality assurance program which includes provisions for repair and replacement, inspection, materials procurement, maintenance, documentation, and reporting to be utilized until September 9, 1997. The interim program will provide a sufficient level of containment integrity during the period of relief between September 9, 1996 and September 9, 1997.

CONCLUSION

Based on the review of the licensee's relief request, the staff agrees with the licensee that the immediate implementation of the requirements of the 1992 Edition of the ASME Code for repair and replacement activities, as required by 10 CFR 50.55a, will result in hardship for the licensee without a compensating increase in the level of quality and safety. Use of the 1989 Edition of the ASME Code and the associated quality assurance requirements, as supplemented by the site specific quality assurance program developed by the licensee, provides adequate assurance of containment integrity for the period requested. Accordingly, the licensee's relief request for delayed implementation of 10 CFR 50.55a is authorized, pursuant to 10 CFR 50.55a(a)(3)(ii), until September 9, 1997.

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