Proposed Change No. 128
Supplement No. 1

Regulatory Docket File

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YANKEE ATOMIC ELECTRIC COMPANY

WYR 76-15

20 Turnpike Road Westborough, Massachusetts 01581

January 29, 1976

United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation

Reference: 1. License No. DPR-3 (Docket No. 50-29)
2. USNRC Letter dated June 30, 1975.
3. YAEC Proposed Change No. 128, dated August 1[illegible], 1975.
4. USNRC Letter dated December 18, 1975.

Dear Sir:

Pursuant to Section 50.59 of the Commission's Regulations, Yankee Atomic Electric Company hereby requests to make the following change:

PROPOSED CHANGE: We propose to incorporate in the Technical Specifications, Appendix A of the referenced license, a section relative to hydraulic snubbers.

REASON FOR CHANGE: Requirements of Reference 2 as amended by Reference 4. Insert Attachment A, paragraph F.2, HYDRAULIC SNUBBERS, into our Technical Specifications. The present specification, paragraph F, entitled ROD DROP TIME shall be renumbered F.1. Henceforth, we will include in paragraph F all specifications designated as "Limiting Conditions for Operation and Surveillance Requirements." To facilitate this revision, we are including Attachment B, revised page 19, showing the renumbered Rod Drop specification.

SAFETY CONSIDERATIONS: Hydraulic snubbers have been installed to prevent unrestrained pipe motion under dynamic loads as might occur during severe transients, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping in the event of a severe transient. It is therefore required that all hydraulic snubbers required to protect the primary coolant or any other system or component be operable during reactor operation.

Because snubber protection would only be required during low probability severe transients, a period of 72 hours is allowed for repair or replacement. An additional 36 hours would be acceptable to reach cold shutdown conditions if a repair or replacement could not be made in the 72 hours.

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All safety related hydraulic snubbers are visually inspected for overall integrity and operability. The inspection shall include, but not necessarily limited to, verification of proper orientation, adequate hydraulic fluid level, fluid connections and proper attachment of snubber to piping and structures.

The inspection frequency is based upon maintaining a constant level of snubber protection. Thus the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment.

Snubbers containing seal material which has not been demonstrated by operating experience, lab tests or analysis to be compatible with the operating environment should be inspected more frequently (every month) until material compatibility is confirmed or an appropriate changeout is completed.

Examination of defective snubbers at reactor facilities and material tests performed at several laboratories has shown that millable gum polyurethane deteriorates rapidly under the temperature and moisture conditions present in many snubber locations. Although molded polyurethane exhibits greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. Lab tests and in-plant experience indicate that seal materials are available, primarily ethylene propylene compounds. which should give satisfactory performance under the most severe conditions expected in reactor installations.

To further increase the assurance of snubber reliability, functional tests should be performed once each refueling cycle. These tests will include stroking of the snubbers to verify proper piston movement, lock-up and bleed. Ten percent or ten snubbers, whichever is less, represents an adequate sample for such tests. Observed failures on these samples should require testing of additional units. Those snubbers designated in Table F.2-1 as being in high radiation areas or especially difficult to remove need not be selected for functional tests provided operability was previously verified.

This Proposed Change has been reviewed by the Nuclear Safety Audit and Review Committee.

SCHEDULE OF CHANGE: The requirements of the proposed change will be implemented upon approval of the change.

We trust you will find this submittal satisfactory; however, should you desire additional information, feel free to contact us.

Respectfully submitted,

YANKEE ATOMIC ELECTRIC COMPANY

D. E. Vandenburgh

D. E. Vandenburgh
Vice President

COMMONWEALTH OF MASSACHUSETTS)
)ss.
COUNTY OF WORCESTER)

Then personally appeared before me, D. E. Vandenburgh, who being duly sworn did state that he is Vice President of Yankee Atomic Electric Company, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Yankee Atomic Electric Company, and that the statements therein are true to the best of his knowledge and belief.

Armand R. Soucy

Armand R. Soucy Notary Public
My Commission Expires September 9, 1977