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# YANKEE ATOMIC ELECTRIC COMPAN Regulatory Docket File



20 Turnpike Road Westborough, Massachusetts 01581

September 14, 1976 WYR 76-95

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

RESE

8011050 644

Attention: Office of Nuclear Reactor Regulation

Reference:

(a) License No. DPR-3 (Docket No. 50-29) (b) YAEC letter, DJS to DEV, dated March 6, 1974. (c) YAEC letter, DEV to DOL, dated September 13, 1974. (d) YAEC letter, LHH to DOL, dated November 5, 1974. (e) YAEC letter, LHH to DOL, dated January 13, 1975 (f) NRC letter, KRG to GCA, dated February 7, 1975 (g) YAEC letter, JLF to DOL, dated March 31, 197 (h) YAEC letter, JLF to DOL, dated March 3, 19762 (i) NRC letter, RAP to RHG, dated May 3, 1976. (j) YAEC letter, JLF to NRR, dated May 17, 1976 (k) NRC letter, AS to RHG, dated August 5, 1976

, Dear Sir:

1am

Yankee Atomic Electric Company was requested in Reference (b) investigate the consequences which could result from a dropped spent fuel shipping cask. The results of our investigation were sugmitted in References (c), (d), and (e), and provided all of the information that was available at the time. During a meeting with your staff on January 22, 1975, Yankee discussed its previous submittals and agreed to investigate the feasibility of incorporating a number of design features into the Yard Crane modifications. Subsequent to that meeting, Reference (f) requested Yankee to submit the details of the Yard Crane modifications by March 28, 1975. In Reference (g), Yankee indicated that the feasibility of the proposed modifications was still being evaluated. Details of the modifications were submitted as a point by point response to Branch Technical Position APCSB 9-1 in Reference (h). Reference (i) requested additional information concerning the proposed modifications. That information was submitted in Reference (j). Reference (k) requested further information. That information is attached to this letter.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

2. French

J.L. French Manager of Operations

## ADDITIONAL INFORMATION

YARD CRANE MODIFICATIONS YANKEE NUCLEAR POWER STATION (YANKEE - ROWE) DOCKET NO. 50-29

#### 1.A. NRC QUESTION

Your proposal to employ only administrative controls for limiting spent fuel cask crane movement while handling critical loads is not acceptable. We will require control devices which, as a minimum, will activate an audible alarm when the crane violates the safe travel path boundaries established for critical load (spent fuel cask) handling. Therefore, provide a discussion on the control devices you will use to prevent the crane from traveling over stored fuel while carrying critical loads such as the spent fuel cask. Include the number, type, and location of controls and how they will function. Discuss any administrative procedures to be used and how they will be used in conjunction with the control system.

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#### B. YAEC RESPONSE

Control devices will be installed which in conjunction with administrative procedures will prevent spent fuel cask movement over stored fuel.

At Yankee Rowe, the Yard Crane is used to transport the spent fuel cask from the area between spent fuel pit and the decontamination building (north of the spent fuel pit) to the north side access hatch of the spent fuel pit roof where it is lowered into the cask loading area of the pit. The cask loading area encompasses about 25 percent of the pit floor space on north side. The area south of the cask loading area is used for fuel storage. After the cask has been loaded, the Yard Crane retrieves the cask through the roof hatch and carries it in a northerly direction (opposite to the direction required for movement over stored fuel) for decontamination and shipping.

Limit switches will be used which will sound audible alarms if the operator drives the bridge past the point at which the cask is lowered through the north side access hatch of the spent fuel pit. Limiting bridge movement to the area north of this point will prevent cask movement over stored fuel. The switches will be the proximity type with the proximity sensors located on the bridge and the actuating brackets located on the bridge rails. The switches, logic circuitry, and alarms will be redundant.

The cask handling procedure will require that the alarm system is tested before handling the spent fuel cask by actually driving the bridge to the point at which the alarms should sound. If the alarm sounds during actual cask handling, the procedure will require that the operator immediately stop bridge motion and then direct the bridge in a northerly direction away from the area over the stored fuel.

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