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

SUPPLEMENT TO THE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

MAINE YANKEE ATOMIC POWER COMPANY

MAINE YANKEE ATOMIC POWER STATION

DOCKET NO. 50-309

1.0 Introduction and Background

By letter dated June 16, 1982 the NRC sent Maine Yankee Atomic Power Company (the licensee) a Safety Evaluation (SE) concerning proposed changes in the spent fuel storage design for the Maine Yankee Atomic Power Station. The conclusion of that SE was contingent on satisfactory resolution of three open items as follows:

Item 1. The licensee must have procedures stating that during full core discharges and after the first third of the core has been discharged, pool bulk water temperature will be monitored following the insertion of each additional assembly. Should this temperature exceed 154°F, these procedures must direct that recently discharged fuel be returned to the reactor vessel until pool bulk water temperature drops to or below 154°F.

Item 2. A limit must be added to the Maine Yankee Technical Specifications which requires that fuel decay at least 120 days from shutdown before it may be consolidated.

Item 3. The license must be conditioned to preclude lifting a spent fuel shipping cask over the pool until a cask drop analysis is submitted by the licensee and approved by the staff.

The licensee has responded to these open items by submittals dated July 21, 1982 and September 7, 1982. We have reviewed the safety considerations associated with these responses to the above open items. Our evaluation follows.

2.0 Evaluation

2.1 Item 1

By letter dated September 7, 1982, the licensee commits to developing procedures in order to limit spent fuel pool bulk temperature to 154°F. This includes development of a predictive model for spent fuel pool bulk temperature which will prevent overshooting the temperature limit. Additionally, in a letter submitted October 5, 1981, the licensee stated that he will monitor and control pool bulk temperature by limiting fuel movement from the reactor to the storage pool, if a full core discharge is necessary, so that the 154°F bulk temperature limit will not be exceeded. We find this approach acceptable, and further find that, if properly implemented, it will adequately address the staff's concerns and requirements stated in Item 1 of the SE, and is therefore acceptable. The staff will, by means of an on-site review, establish that these procedures have been properly prepared and implemented prior

to transfer of spent fuel to the modified storage racks in the spent fuel pool. On the basis of the licensee's commitment which we will verify prior to transfer of fuel, we conclude that Item 1 is resolved and is therefore considered closed.

2.2 Item 2

The licensee has proposed by letter dated July 21, 1982 an addition to section 3.13-B of his Technical Specifications, as follows:

"B. The following conditions shall be satisfied during fuel consolidation:

1. Irradiated fuel shall not be consolidated until it has been cooled at least 120 days after reactor shutdown."

We have reviewed this proposed change in the Technical Specifications and find that the proposed TS meets the staff's requirement identified in Item 2, and therefore, is acceptable. This TS will be incorporated into the Maine Yankee license prior to the transfer of fuel into the modified storage racks in the spent fuel pool. Based on the licensee's proposed TS, we conclude that Item 2 is resolved and is, therefore, considered closed.

2.3 Item 3

The licensee has proposed by letter dated July 21, 1982 an addition to Section 1.1.B to his Technical Specifications as follows:

"Spent fuel shipping casks shall not be lifted over the spent fuel storage pit."

We have reviewed this proposed change in the Technical Specifications and find that the proposed TS meets the staff's requirements stated in Item 3, and therefore, is acceptable. This TS will be incorporated into the Maine Yankee license prior to the transfer of fuel into the modified storage racks in the spent fuel pool. On the basis of the licensee's proposed TS, we conclude that Item 3 is resolved and is, therefore, considered closed.

3.0 Conclusions

Based on our evaluation and conclusions presented in Section 2.0, we find all of the open items from the SE dated June 16, 1982 have now been acceptably resolved. Therefore, it is further concluded that the findings, evaluations and conclusions of the original SE remain valid and are no longer conditioned upon the resolution of the above open items.

Date:

Principal Contributor:

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