VERMONT YANKEE NUCLEAR POWER CORPORATION



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June 25, 1993 BVY 93-063

United States Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555

References: (a) License No. DPR-28 (Docket No. 50-271)

Subject: Proposed Change No. 172, Core Alteration Definition

Dear Sir:

Pursuant to Section 50.90 of the Commission's Rules and Regulations, Vermont Yankee Nuclear Power Corporation hereby proposes the following change to the facility Operating License.

Proposed Change

This Proposed Change clarifies the Technical Specification definition of Alteration of the Reactor Core. The current VY Technical Specification definition of Alteration of the Reactor Core is as follows:

"The act of moving any component in the region above the core support plate, below the upper grid and within the shroud. Normal movement of the control rods, or the neutron detectors is not defined as a core alteration".

A revised definition is provided as an Attachment to this submittal. It proposes to clarify the definition of Alteration of the Reactor Core as follows:

"The act of moving any component affecting reactivity within the reactor vessel in the region above the core support plate, below the upper grid and within the shroud. Normal movement of control rods or neutron detectors, or the replacement of neutron detectors is not defined as a core alteration".

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Reason for Change

This Proposed Change will clarify the definition of core alteration to include only those components that affect core reactivity. The current definition needlessly restricts outage task scheduling flexibility because Technical Specification 3.12.A requires that the reactor mode switch be locked in the "Refuel" position during "core alterations". If replacement of neutron detectors were not interpreted as a core alteration, then replacement of Local Power Range Monitors (LPRMs) could occur during periods when the reactor mode switch was in the "Refuel" or "Shutdown" position.

Basis for Change

The basis for 3.12.A Refueling Interlocks specification, which employs the core alteration definition, is as follows. During refueling operations, the reactivity potential of the core is being altered. It is necessary to require certain interlocks and restrict certain refueling procedures such that there is assurance that inadvertent criticality does not occur. The addition of large amounts of reactivity to the core is prevented by operating procedures which are backed up by refueling interlocks on control rod withdrawal and movement of the refueling platform.

The proposed definition of core alteration will exclude movement of neutron detectors from consideration as a core alteration. It was never intended that LPRM's be considered core alterations. The reactivity change due to LPRM replacement is so infinitesimally small that it is not even considered or neutronically modeled in the Vermont Yankee SIMULATE-3 core model licensing code. Additionally, it will now be clear that movement of components that do not effect core reactivity (eg. fuel support casting, core plate plugs, guide tubes, etc.) will not be considered core alterations.

Safety Consideration

The Proposed Change is a clarification of the definition of core alteration. The change will clarify that neutron detectors cannot affect the reactivity potential of the core. This clarification will make it permissible to replace neutron detectors during "Shutdown" in addition to "Refuel" modes of operation. This change will not modify or reduce the effectiveness of the Refueling Interlocks, refueling restrictions or their bases as listed in Technical Specifications 3.12.A and 4.12.A. This will provide continued assurance that inadvertent criticality does not occur. The Proposed Change has no impact on the Vermont Yankee Technical Specifications or Final Safety Analysis Report.

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This Proposed Change has been reviewed by the Vermont Yankee Plant Operations Review Committee and the Vermont Yankee Nuclear Safety Audit and Review Committee.

Significant Hazards Consideration

The standards used to arrive at a determination that a request for amendment involves no significant hazards are included in the Commission's regulations (10CFR50.92) which state that the operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. In addition, the Commission has provided guidance in the practical application of these criteria in 51FR7751, dated March 6, 1986.

The discussion below addresses each of these criteria and demonstrates that the proposed amendment involves no significant hazards considerations.

The Proposed Change will clarify the definition of "core alteration". This clarification will specify that replacement of neutron detectors is not defined as a CORE ALTERATION. Replacement of these components is not considered to be a core alteration and they may be moved (replaced) with the reactor mode switch in the "Shutdown" or "Refuel" positions.

This change will not affect any plant hardware, plant design, safety limit settings, or plant system operation, and therefore does not modify or add any initiating parameters that would significantly increase the probability or consequences of any previously analyzed accident. Therefore, the Proposed Change will not result in a significant increase in the probability or consequences of an accident previously evaluated.

As discussed above, the Proposed Change only clarifies the definition of "core alteration". The Proposed Change does not affect any equipment nor does it involve any potential initiating events that would create any new or different kind of accident. As such, the plant initial conditions utilized for the design basis accident analyses remain unchanged and valid. Therefore, the Proposed Change does not create the possibility of a new or different kind of accident from any previously analyzed.

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As discussed above, the Proposed Change which clarifies the definition of "core alteration" does not affect any equipment involved in potential initiating events or safety limit settings. Therefore, the Proposed Change does not involve a significant reduction in the margin of safety.

Based on the above, we have determined that this change does not constitute a significant hazards consideration as defined in 10CFR50.92(c).

Schedule of Change

The revised pages will be incorporated into the Technical Specifications as soon as practicable following receipt of your approval.

We trust that the information provided adequately supports our request; however, should you have any questions, please contact us.

Very truly yours,

Vermont Yankee Nuclear Power Corporation

NOTARY

PUBLIC

Donald A. Reid

Vice President, Operations

cc: USNRC Regional Administrator - Region I
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS
VT Department of Public Service

STATE OF VERMONT)
) SS

WINDHAM COUNTY

Then personally appeared before me, Donald A. Reid, who, being duly swern, did state that he is Vice President, Operations of Vermont Yankee Nuclear Power Corporation, that he is authorized to execute and file the foregoing document in the name and on the behalf of Vermont Yankee Nuclear Power Corporation and that the statements therein are true to the best of his knowledge and belief.

Sally A. Sandstrum Notary Public

My Commission Expires February 10, 1995