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August 21, 2001
BVY 01-67

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: **Vermont Yankee Nuclear Power Station**
License No. DPR-28 (Docket No. 50-271)
Technical Specification Proposed Change No. 249
HPCI and RCIC Allowed Outage Time – Supplemental Information

By letter dated August 14, 2001 (BVY 01-64), Vermont Yankee (VY) requested an amendment to its Facility Operating License, DPR-28 to extend the allowed outage time (AOT) for the High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems from 7 days to 14 days. The extension of AOT provides additional time to perform testing, maintenance, or make repairs without significantly affecting plant safety. This letter provides additional information in this regard.

Attachment 1 to this letter supplements information provided in the safety assessment of the original proposed change. Attachment 2 to this letter contains a determination of no significant hazards consideration (NSHC). This determination of NSHC entirely replaces the original NSHC submittal. The remainder of Proposed Change No. 249, as submitted by letter dated August 14, 2001, is unchanged.

If you have any questions on this transmittal, please contact Mr. Gautam Sen at (802) 258-4111.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Michael A. Balduzzi
Senior Vice President and Chief Nuclear Officer

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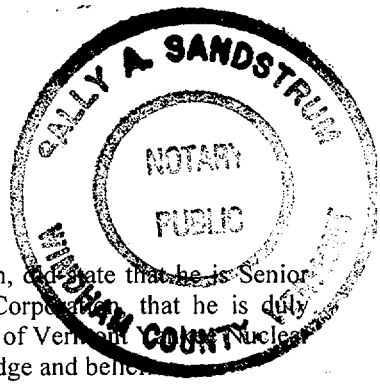

STATE OF VERMONT)
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WINDHAM COUNTY)

Then personally appeared before me, Michael A. Balduzzi, who, being duly sworn, did state that he is Senior Vice President and Chief Nuclear Officer of Vermont Yankee Nuclear Power Corporation, that he is duly 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

Sally A. Sandstrum, Notary Public
My Commission Expires February 10, 2003

Attachments

cc: USNRC Region 1 Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS
Vermont Department of Public Service

Docket No. 50-271
BVY 01-67

Attachment 1

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 249

HPCI and RCIC Allowed Outage Time

Supplemental Information

SUPPLEMENT TO SAFETY ASSESSMENT
PROPOSED CHANGE No. 249
HPCI AND RCIC ALLOWED OUTAGE TIME

1. Additional Requirement to Immediately Verify Operability

The proposed change revises current Technical Specifications (CTS) 3.5.E.2 and 3.5.G.2 by adding requirements for the verification of operability of the RCIC system when the HPCI system is inoperable (i.e., LCO 3.5.E.2) and verification of operability of the HPCI system when the RCIC system is inoperable (i.e., LCO 3.5.G.2). These requirements are necessary to assure availability of an alternate means for supplying coolant makeup at reactor pressures exceeding 150 psig. Certain analyzed events (e.g., station blackout) assume the availability of either RCIC or HPCI for reactor coolant makeup.

The requirement to verify by administrative means is defined in the Bases to be the performance of an administrative check, by examining logs or other information to determine that the alternate system is in service. Verification of operability in this manner precludes any testing or physical demonstration of operability and is reflective of general industry practice as incorporated into Standard Technical Specifications and other VY TS. Demonstration of operability through testing is unnecessary and does not significantly improve the confidence in operability, but does introduce concerns regarding system degradations and unavailability of a safety function during the test. Periodic and post-maintenance testing is adequate to demonstrate operability. In generic communications, the NRC staff has previously concurred that verification by administrative means is an acceptable practice for assuring system operability.

This change is acceptable because immediate verification precludes prolonged reactor power operation at > 150 psig without this source of reactor coolant makeup, and there are no adverse consequences associated with verifying operability of alternate systems.

2. Re-Structuring of TS Into Two Parts

TS 3.5.E.2 and TS 3.5.G.2 are re-structured by splitting these TS into parts "a" and "b" for clarification purposes. Part "a" includes the requirements discussed above regarding immediate verification of RCIC and HPCI operabililty. Part "b" contains requirements that are identical to the existing requirements, except that the 7 day allowed outage duration is changed to 14 days and "subsystems" is changed to "systems" (see below). Considering the additional verification requirement, re-structuring of the TS into two discrete parts provides a format that is user-friendly and preferred by the reactor operator. By itself, re-structuring of format is considered an administrative change and is acceptable because it does not revise any technical requirement.

3. Nomenclature Change from "Subsystem" to "System"

In current TS 3.5.E.2, HPCI and ADS are referred to as "subsystems." This TS is being changed to refer to these as "systems" since HPCI and ADS are both single train systems. Furthermore, it is common VY practice to refer to HPCI and ADS as individual systems. This change will add consistency to the TS since HPCI and ADS are described as "systems" elsewhere in TS (e.g., 3.5.E and 3.5.G). A change in nomenclature or terminology is considered an administrative change since it reflects preference and adds consistency in use within the TS and other documentation. An administrative change of this kind is acceptable because it does not change any technical requirement.

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BVY 01-67

Attachment 2

Vermont Yankee Nuclear Power Station

Proposed Technical Specification Change No. 249

HPCI and RCIC Allowed Outage Time

Determination of No Significant Hazards Consideration

Description of amendment request:

The proposed amendment would extend the Technical Specification (TS) allowed outage time (AOT) for the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Systems from 7 days to 14 days. The extension of AOT provides additional time to perform testing, maintenance, or make repairs without significantly affecting plant safety. This increased flexibility in work scheduling may benefit system reliability because increased AOT will provide additional time for inspection, testing, maintenance and other quality-contributing activities.

Additional requirements are also added to the TS that immediately assure availability of alternate means for supplying high pressure coolant makeup when a high pressure cooling system is inoperable. In addition, clarifying changes are being proposed to the TS to reformat the TS to accommodate additional requirements and to make consistent use of nomenclature.

Basis for No Significant Hazards Determination:

Pursuant to 10CFR50.92, VY has reviewed the proposed change and concludes that the change does not involve a significant hazards consideration since the proposed change satisfies the criteria in 10CFR50.92(c). These criteria require that the operation of the facility in accordance with the proposed amendment will 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. The discussion below addresses each of these criteria and demonstrates that the proposed amendment does not constitute a significant hazard.

1. Will the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

   The High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Systems do not serve any function for preventing accidents, and their unavailability would not affect the probability of accidents previously evaluated. The unavailability of either HPCI or RCIC is not considered to be a potential accident initiator. As such, the inoperability of HPCI or RCIC will not increase the probability of any accident previously evaluated.

   Therefore, the proposed change will not increase the probability of any accident previously evaluated.

   Emergency Core Cooling Systems (ECCS) are used to mitigate the consequences of an accident. However, RCIC is not an ECCS and is not credited in any accident previously evaluated. HPCI is capable of mitigating small loss of coolant accidents, but this function would be met by the available Automatic Depressurization System in conjunction with the low pressure coolant injection or core spray systems, which is the basis for the current 7-day allowed outage time (AOT). The consequences of an event occurring during the proposed 14-day AOT are the same as the consequences of an event occurring during the existing 7-day AOT. Therefore, adequate core cooling would still be provided and the consequences of accidents previously evaluated are not increased.

   Therefore, the proposed change will not increase the consequences of any accident previously evaluated.

2. Will the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

This proposed change to the Technical Specifications will not physically alter the plant. No new or different types of equipment will be installed. Plant operations will remain consistent with current safety analysis assumptions regarding availability of equipment. Thus, no new failure mode not previously analyzed will be introduced.

Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will the proposed changes involve a significant reduction in a margin of safety?

The proposed change does not involve a significant decrease in a margin of safety because, as in the existing AOT Technical Specifications, the 14-day completion time for restoring HPCI or RCIC is contingent upon the operability of redundant equipment (i.e., for HPCI, RCIC and ADS in conjunction with low pressure coolant injection/spray subsystems are required to be operable; and for RCIC, HPCI is required to be operable).

The 14-day completion time is based on a reliability study that evaluated the impact on ECCS availability (Memorandum from R.L. Baer (NRC) to V. Stello, Jr. (NRC), "Recommended Interim Revisions to LCOs for ECCS Components," December 1, 1975). This study determined that allowing the additional outage time for HPCI was acceptable and demonstrated that adequate core cooling would still be provided. The same justification applies to RCIC.

Therefore, this change does not involve a significant reduction in a margin of safety.

Conclusion

On the basis of the above, VY has determined that operation of the facility in accordance with the proposed change does not involve a significant hazards consideration as defined in 10CFR50.92(c), in that it: (1) does not involve a significant increase in the probability or consequences of an accident previously evaluated; (2) does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) does not involve a significant reduction in a margin of safety.