## VERMONT YANKEE NUCLEAR POWER CORPORATION



Ferry Road, Brattleboro, VT 05301-7002

REPLY TO

ENGINEERING OFFICE

580 MAIN STREET BOLTON, MA 01740 (508) 779-6711

April 18, 1996 BVY 96-51

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

References:

- (a) License No. DPR-28 (Docket No. 50-271)
- (b) Letter, USNRC to All Licensees, Generic Letter 96-01, dated January 10, 1996
- (c) Letter, B.A. Boger (USNRC) to A. Marion (NEI), dated Februrary 14, 1996
- (d) Memorandum, VYI 211/87, "Summary of Vermont Yankee Technical Specification Logic System Functional Testing," dated September 21, 1987

Subject:

Response to NRC Generic Letter 96-01, "Testing of Safety Related Logic Circuits"

This letter transmits the 60-day required response of Generic Letter 96-01[Reference (b)] in accordance with the revised response date communicated by the NRC to NEI in Reference (c). Vermont Yankee plans to implement the requested actions of Reference (b) in accordance with the schedule provided.

In 1987, in response to Duane Arnold logic testing deficiencies identified by the NRC, Vermont Yankee evaluated its Technical Specification requirements for logic system functional testing (LSFT) [Reference (d)]. Specifically, Vermont Yankee performed a detailed review of station drawings and surveillance procedures to verify acceptable testing of systems identified in the Technical Specifications which required LSFT. The systems evaluated included the reactor protection system (RPS) and engineered safety features (ESF) systems. The design intent of each Technical Specification system was verified to the contact level, from sensor to end device (where possible), taking credit for overlapping surveillance test requirements. Following the evaluation, logic system test procedures were enhanced, where necessary, to ensure acceptable LSFT.

The methodology used to perform this evaluation was formally documented and is the basis for evaluating logic test requirements for new and modified logic circuits. Based upon this evaluation, Vermont Yankee considers the existing surveillance procedures sufficient to verify that the Technical Specification requirements for the systems evaluated are being satisfied. However, Vermont Yankee will review the 1987 evaluation and ensure that the RPS and ESF systems have been evaluated to the extent requested in Reference (b).

Proper operation of the emergency diesel generator (EDG) load shedding and sequencing circuits (Technical Specification 4.10.A.1.b) is verified each operating cycle under existing plant procedures. Although this test verifies proper EDG load shedding and sequencing, plant procedures have not been evaluated as requested in Reference (b). Therefore, Vermont Yankee will perform the requested actions of Reference (b) for the EDG load shedding and sequencing systems.

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Vermont Yankee performs a complete functional test following implementation of design modifications of safety-related logic circuits. However, Vermont Yankee will review logic circuit modifications implemented since our 1987 review to confirm that surveillance procedures affected by those changes continue to meet the requirements of Reference (b).

Following the reviews described above, Vermont Yankee will update, as necessary, applicable Technical Specification surveillance procedures to ensure that these procedures demonstrate, to the extent required by Reference (b), each system's ability to perform its safety function.

Reference (b) requested completion of the requested actions prior to startup from the first refueling outage commencing one year after the issuance of Reference (b). For Vermont Yankee, this will be startup from our Spring, 1998 refueling outage. However, recognizing the safety significance of this issue, Vermont Yankee will complete the requested actions by August 31, 1997. Additionally, in accordance with Reference (b), Required Response (2), Vermont Yankee will submit a letter to the NRC by September 30, 1997 confirming the completion of the requested actions.

We trust that the information provided is acceptable; however, should you have any questions, please contact this office.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Jay K. Thayer

Vice President, Engineering

USNRC Region I Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS

STATE OF VERMONT ) )ss

WINDHAM COUNTY )

Then personally appeared before me, Jay K. Thayer, who being duly sworn, drestate that he is Vice Bresident, Engineering, 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, Notary Public

My Commission Expires February 10, 1999