February 14, 2000

Mr. Samuel L. Newton
Vice President, Operations
Vermont Yankee Nuclear Power Corporation
185 Old Ferry Road
Brattleboro, VT 05301

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR VERMONT YANKEE NUCLEAR POWER CORPORATION REGARDING VERMONT YANKEE NUCLEAR POWER STATION (TAC NO MA8168, NOED NO. 00-06-01)

Dear Mr. Newton:

By letter dated February 11, 2000, you documented your request that the Nuclear Regulatory Commission (NRC) exercise discretion not to enforce compliance with Technical Specification (TS) Surveillance Requirement (SR) 4.7.D.1.d for MSIV-80C and for not performing the associated actions of TS 3.7.D.2 and TS 3.7.D.3. You previously discussed your request with the NRC in a telephone conference on February 10, 2000, starting at 3 p.m. The principal NRC staff members who participated in that telephone conference included Elinor Adensam, Director, Project Directorate I; Richard (Jack) Crlenjak, Deputy Director, Division of Reactor Projects, Region I; Richard Lobel, Plant Systems Branch, NRR; Yun-Seng Huang, Mechanical and Civil Engineering Branch, NRR; James Clifford, Section Chief, Project Directorate I, Section 2; Clifford Anderson, Branch Chief, Branch 5, Division of Reactor Projects, Region I; Brian McDermott, Vermont Yankee Senior Resident Inspector, Region I; and Richard Croteau, Vermont Yankee Project Manager, Project Directorate I. You stated that on February 11, 2000, at approximately 11:30 p.m. Vermont Yankee Nuclear Power Station (VY) would not be in compliance with SR 4.7.D.1.d for main steam isolation valve (MSIV) 80C. TS 4.7.D.1.d requires that, at least twice per week, the MSIVs be exercised by partial closure and subsequent reopening. This enforcement discretion was requested because VY planned to not perform this surveillance test on one of the eight MSIVs (MSIV-80C) due to concerns that the surveillance could introduce an unnecessary plant transient. Failure to perform this SR would require compliance with the associated action statements in TS 3.7.D.2 and TS 3.7.D.3 leading to a plant shutdown. You requested that a Notice of Enforcement Discretion (NOED) be issued pursuant to the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.c. of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, to be effective from February 11, 2000, until a permanent change to the TS is approved and implemented, but no later than March 24, 2000. This letter documents our telephone conversation on February 10, 2000, starting at 3 p.m. when we orally issued this NOED.

You stated that during performance of the TS-required partial closure test on MSIV-80C, operations personnel noticed that the time to return to the full open position seemed unusually long during several of the recent tests. It was only the partial opening time for MSIV-80C, that has been observed to be erratic during the twice-weekly surveillance. This opening function is not a safety function credited in the station safety analyses. The apparent root cause of the intermittent time to return to the full open position on MSIV-80C is a slow shifting or partial shifting of the 3-way valve on the actuator air control unit. The 3-way valve is installed solely for

the purpose of performing the slow speed partial closure test by venting the underside piston air through an adjustable flow restriction and allowing the spring force to slowly close the MSIV. This 3-way valve is not used during the fast closure test or normal actuation of the MSIV. Fast closure of the MSIV is controlled through separate 2-way and 4-way valves. The safety function of the MSIVs is to quickly isolate the main steam lines in the event of a postulated steam line break or control rod drop accident in order to limit the loss of reactor coolant and/or the release of radioactive materials. The MSIVs perform a safety function by mitigating the consequences of accidents; however, an operational transient can be initiated by the inadvertent closure of MSIVs. The fast closure requirements of TS 4.7.D.1.c were satisfactorily performed prior to start up from the fall 1999 refueling outage and again on February 9, 2000. Satisfactory performance of this test provides a high degree of confidence that the cause of the slow return to the full open position experienced during partial closure testing does not affect the ability of the MSIV to perform its safety function to close within 3 to 5 seconds. A review of the potential root causes of the observed condition does not indicate that there are any common mode issues that would impact the components that support actuation of the MSIV closure to support performance of the credited safety function.

You also stated that the requirement to exercise MSIVs twice weekly was originally incorporated into the TS at the time VY was first licensed to operate. The purpose of this frequent, partial stroke test was to provide assurance that the valve actuator is operable and will function as intended when necessary. Because of a distinctive design, the earliest MSIV solenoid-operated pilot valves were susceptible to binding that could compromise MSIV performance. To compensate for this potential, twice-weekly testing was conducted to provide assurance of valve reliability. The earlier design pneumatic control valves were replaced a number of years ago with those of a different manufacturer and different design. Long-term operating experience (VY and industry) has demonstrated superior reliability of the replacement components. The solenoid-operated pilot valves that were susceptible to binding were replaced, but the VY TSs were not revised to eliminate the twice-weekly exercise of the MSIVs.

You stated that the capability of valve MSIV-80C to perform its credited safety function has been adequately tested and the requested action does not have any impact on the plant safety analysis.

The NRC staff evaluated your safety rationale for the requested NOED and verified that your request not to enforce compliance with TS 4.7.D.1.d and the associated actions of TS 3.7.D.2 and TS 3.7.D.3 for MSIV-80C until the exigent amendment request to delete TS 4.7.D.1.d is issued and implemented, but no later than March 24, 2000, does not involve a significant increase in risk to the safe operation of VY. The American Society of Mechanical Engineers (ASME) Code requires quarterly testing of this valve. Performing the fast closure testing required by TS 4.7.D.1.c accomplishes the ASME Code required testing. The fast closure requirements of TS 4.7.D.1.c were satisfactorily performed for MSIV-80C on February 9, 2000. The twice weekly testing to partially close and subsequently reopen MSIV-80C per TS 4.7.D.I.d is not required by the ASME Code and is not necessary to demonstrate adequate safety performance of the MSIV. You stated that the apparent root cause of the intermittent time to return to the full open position on MSIV-80C is a slow shifting or partial shifting of the 3-way valve on the actuator air control unit. The 3-way valve is installed solely for the purpose of performing the slow speed partial closure test by venting the underside piston air through an adjustable flow restriction and allowing the spring force to slowly close the MSIV. This 3-way valve is not used during the fast closure test or normal actuation of the MSIV. Fast closure of

the MSIV is controlled through separate 2-way and 4-way valves. The NRC staff has concluded that granting this requested NOED does not involve a significant increase in risk to the safe operation of Vermont Yankee because; 1) the quarterly fast closure test per TS 4.7.D.1.c, recently performed on February 9, 2000, verifies that the MSIV can perform its safety function; 2) the quarterly fast closure test per TS 4.7.D.1.c satisfies the ASME Code required test; and 3) the 3-way valve used in the twice weekly test per TS 4.7.D.1.d is not repositioned for fast closure (safety function) of the MSIVs.

VY is currently operating at full power. In order to avoid a potential transient should MSIV 80-C inadvertently continue to go to a closed position during biweekly testing per TS 4.7.D.1.d, and the transient associated with plant shutdown by compliance with TS 3.7.D.2 and TS 3.7.D.3, the staff concludes that the requested NOED should be allowed. Based on the previously discussed considerations, the staff concludes that Criterion 1 of Section B and the applicable criteria in Section C.4 to NRC Manual Chapter 9900, "Technical Guidance, Operation - Notice of Enforcement Discretion" were met. Criterion 1 of Section B states that for an operating plant, the NOED is intended to avoid an undesirable transient as a result of forcing compliance with the license condition, and thus minimize the potential safety consequences and operational risks.

On the basis of the staff's evaluation of your request, we have concluded that a NOED is warranted because we are clearly satisfied that this action involves minimal or no safety impact, is consistent with the enforcement policy and staff guidance, and has no adverse impact on public health and safety. Therefore, it is our intention to exercise discretion not to enforce compliance with TS 4.7.D.1.d and the associated action statements of TS 3.7.D.2 and TS 3.7.D.3 for the period from February 11, 2000, until issuance and implementation of a license amendment, but no later than March 24, 2000. The amendment request was submitted on February 11, 2000. The staff plans to complete its review and issue the license amendment within 4 weeks of the date of this letter.

As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

/RA/

Elinor G. Adensam, Director
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reaction Regulation

Docket No. 50-271

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Elinor G. Adensam, Director
Project Directorate I
Division of Licensing Project Management
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