

VERMONT YANKEE NUCLEAR POWER CORPORATION



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FVY 84-148

REPLY TO:

ENGINEERING OFFICE

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FRAMINGHAM, MASSACHUSETTS 01701
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December 18, 1984

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation
Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing

References:

- a) License No. DPR-28 (Docket No. 50-271)
- b) Letter, USNRC to All Operating Licensees, Generic Letter 80-07, dated 12/22/80
- c) Letter, USNRC to All Operating Licensees, Generic Letter 81-07, dated 2/3/81
- d) Letter, VYNPC to USNRC, FVY 81-134, dated 9/11/81
- e) Letter, VYNPC to USNRC, dated 12/30/75
- f) Letter, VYNPC to USNRC, dated 6/2/76
- g) Letter, USNRC to VYNPC, Safety Evaluation Report, dated 1/28/77
- h) Letter, USNRC to VYNPC, Safety Evaluation Report, NRY 84-139, dated 6/27/84
- i) Letter, VYNPC to USNRC, FVY 84-51, dated 5/21/84

Dear Sir:

Subject: NUREG 0612, Control of Heavy Loads

By Generic Letter 80-07 [Reference b)], as supplemented by Generic Letter 81-07 [Reference c)], we were requested to review our controls for handling heavy loads at Vermont Yankee, implement certain interim actions, and submit a report documenting our review as well as the need for any changes with regard to handling heavy loads.

Our initial response to the Generic Letters was submitted by letter dated September 11, 1981 [Reference d)]. This letter provided the results of our review of the general concerns expressed in NUREG 0612, Control of Heavy Loads, including certain commitments to enhance the existing policies and procedures for handling heavy loads. By this letter we also informed you that based on the results of our review we concluded that Vermont Yankee had sufficiently satisfied the intent of the NUREG. The basis for this determination was provided as Attachment 1 to the September 11, 1981 submittal. In addition, the

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adequacy of the Reactor Building crane and its operation have been previously subjected to close scrutiny by Vermont Yankee and the NRC. By letters dated December 30, 1975 and June 2, 1976 [References e) and f)], we provided you with detailed information concerning modifications to make the crane fully redundant and single failure proof for fuel cask movements. The NRC's review and approval of these modifications is documented in the January 28, 1977 Safety Evaluation Report [Reference g)].

Subsequent to our September 1981 submittal, we have responded to numerous NRC requests for additional information and have held telecons with members of your staff in an attempt to closeout this issue for Vermont Yankee. During these telecons we have repeatedly expressed our opinion that full implementation of the NUREG will result in insignificant improvement to existing margins of safety.

We also expressed concern during the telecons that the NRC consultant, Franklin Research Center (FRC), was inappropriately applying conservative interpretations of the NUREG guidelines in performing their review of Vermont Yankee's submittals. For example, Section 5.1.5 subparagraph (1)(c) states that to satisfy the general guidelines of Section 5.1.1, "effects of load drops have been analyzed and the results indicate that damage to safe shutdown equipment would not preclude operation of sufficient equipment to achieve safe shutdown." FRC stated in their Final Draft Technical Evaluation Report [see Reference h)] that load handling systems affected by NUREG 0612 should comply, when utilized in the vicinity of safe shutdown equipment, regardless of system redundancy. This would mean that to satisfy Section 5.1.5, Vermont Yankee would have to analyze the effects of load drops in damaging "any" safe shutdown equipment. We do not agree that NUREG 0612 was intended to omit system redundancy when evaluating load handling devices in and around safety-related equipment. FRC's interpretation elevates NUREG 0612 above Vermont Yankee's existing licensing and design bases. Facility Technical Specification Limiting Conditions for Operation (LCO's) recognize system redundancy and allow certain safety-related equipment to be out of service. Our engineering review has concluded that a sufficient factor of safety exists such that there is no anticipated heavy load drop which will preclude the safe shutdown of the plant.

In summary, we believe that our present program for handling heavy loads assures that the four (4) objectives of Section 5.1 of NUREG 0612 have been satisfied. Specifically, as a result of our consideration of the NUREG the following aspects of our program were reviewed:

- o Plant Policies - Administrative controls were enhanced to minimize the consequences of a heavy load drop.

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- o Crane Operator Training - A formalized training program was initiated to ensure that crane operators are qualified consistent with ANSI 30.2.
- o Plant Procedures - Reference to applicable portions of NUREG 0612 were integrated into existing procedures to further assure that the objectives of the NUREG were satisfied.

Additionally, a new procedure was developed to specifically address monorails in close proximity to safe shutdown equipment.

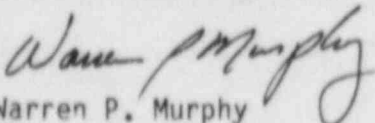
- o Plant Design - Consistent with Sections 5.1.4 and 5.1.5 of the NUREG, the effects of load drops have been assessed and the results indicate that the existing Limiting Conditions for Operation (LCO's) of our Facility Technical Specifications are sufficient to maintain the intended safety margins.
- o Reactor Building Crane Design - Our evaluation of known heavy loads has concluded that an adequate factor of safety exists. Further, the main hook has fully redundant load paths down to the hook.
- o Safe Load Paths - We have established and procedurally defined safe load paths for major loads, as described in our May 21, 1984 submittal [Reference i)]. These load paths were based on our policy that heavy loads are lifted and moved directly to their intended destinations carefully and expeditiously so as to minimize handling time. In addition, pick heights are kept within reasonable limits.

Based on the above, we have concluded that our enhanced program for handling heavy loads adequately addresses the concerns expressed in NUREG 0612. We have also concluded that no significant improvement to existing margins of safety would result from the additional analyses and engineering necessary to completely address Sections 5.1.4 and 5.1.5 of the NUREG.

We trust that this information adequately addresses your concerns; however, should you need additional information, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION


Warren P. Murphy
Vice President and
Manager of Operations