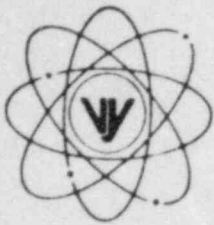


# VERMONT YANKEE NUCLEAR POWER CORPORATION



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

FVY 84-114

REPLY TO:  
ENGINEERING OFFICE

1671 WORCESTER ROAD  
FRAMINGHAM, MASSACHUSETTS 01701  
TELEPHONE 617-872-8100

September 24, 1984

U.S. Nuclear Regulatory Commission  
Office of Inspection & Enforcement  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

Attention: Thomas T. Martin, Director  
Division of Engineering & Technical Programs

References: a) License No. DPR-28 (Docket No. 50-271)  
b) Letter, USNRC to VYNPC, dated August 17, 1984 and  
Inspection Report 84-11, Appendix A (Notice of Violation)

Dear Sir:

Subject: Response to Inspection Report 84-11

This letter is written in response to Reference b), which indicates that one of our activities was not conducted in full compliance with Nuclear Regulatory requirements. This alleged Level IV violation was identified as a result of an inspection conducted by Mr. J.R. White during the period May 21-24, 1984. This letter is submitted at a date later than that required by Reference b) as allowed by our telephone conversation with your Mr. Raymond.

Information is submitted as follows in answer to the alleged violation contained in the Appendix to your letter.

Item In an "Order Confirming Licensee Commitments on Post-TMI Related Issues", dated March 14, 1983, the Nuclear Regulatory Commission ordered the licensee to implement and maintain specific items, as described in the attachments to the Order, in the manner described in the licensee's submittals noted in Section III of the Order, and no later than the dates in the Attachment to the Order.

Attachment 1 to the Order indicated that the actions pertaining to the capability for effluent monitoring of radioiodine, and the installation of containment radiation level monitors were completed (pursuant to the criteria specified in NUREG 0737, Item II.F.1), on January 1, 1982.

841001025B 840924  
PDR ADDCK 05000271  
G PDR

IE06  
1/0

VERMONT YANKEE NUCLEAR POWER CORPORATION

Contrary to the above, as of May 21, 1984:

1. The licensee's installation for effluent monitoring of particulates and radioiodine appeared insufficient to provide representative samples of the effluent release as specified in the Order relative to NUREG 0737, Item II.F.1-2; nor was the system verified or validated to provide for such capability as stated in the design criteria.
2. The licensee's installation of high radiation monitoring channels in the drywell was insufficient in that the detectors were not widely separated as specified in the Order relative to the requirements of NUREG 0737, Item II.F.1-3. The monitors were located within 12 feet from each other.

This is a Severity Level IV violation (Supplement I).

Response

1. During the 1984 refueling outage Engineering Design Change Request (EDCR) 84-420 was implemented to ensure that isokinetic sampling is achieved. Under this EDCR, the sample tubing was reconfigured to: 1) eliminate sharp bends and tees; and 2) remove unnecessary valves and tubing. Also, an isokinetic nozzle was installed within the one-inch sample line to provide sampling for the Iodine Sampling System. These changes will assure adequate and efficient isokinetic air flow to each part of the Iodine Sampling System in accordance with the design calculation.

In addition to the design change, procedure OP 3530 is under revision to provide for continuous or repeated grab sampling of effluent in the event of a potential or actual release. It is anticipated that the revised procedure will be in effect by October 15, 1984.

As a further measure to assure the adequacy of the Stack Post Accident Sampling System, an outside consultant will be employed to perform an independent system review. Tests to determine sample representativeness will be performed by the consultant as part of his evaluation. It is expected that this effort will be completed by February 1, 1985.

It is our position that the modifications performed under EDCR 84-420 provide conformance with the requirements as specified in the order relative to Item II.F.1-2 of NUREG 0737. Furthermore, we conclude that the use of an independent review will provide the necessary assurance of system validity.

VERMONT YANKEE NUCLEAR POWER CORPORATION

2. Vermont Yankee installed redundant containment high range radiation monitors in November 1980. The monitor channels are independent, powered by normal and vital power, and have been designed and installed to meet seismic and environmental qualification requirements. In the absence of definitive regulatory criteria, Vermont Yankee chose locations for the monitors as dictated by the following:

- 1) The installed locations were the best possible locations for viewing the largest segment of the drywell.
- 2) The small volume of the drywell and the congestion caused by piping limits the number of acceptable locations for the detectors and the ability to monitor widely separated and independent areas of the drywell.
- 3) The presence of main steam lines and structural shielding eliminates major portions of the drywell as acceptable locations.

As presently installed, the containment high range monitors would provide a reasonable assessment of area radiation inside containment in the event of a significant violation of the reactor coolant system pressure boundary. The range of the monitors is adequate to follow radiation levels from 1 R/hr to  $10^7$  R/hr (gamma) which is the maximum expected in an accident where the release from the fuel is equivalent to 100% of the core inventory of noble gases, 50% of the halogens and 1% of other isotopes. As recommended, thick shielding was not used to increase the range of the detectors.

On this basis, we do not believe our installation is in violation of "The Order Confirming Licensee Commitments on Post-TMI Related Issues", dated March 14, 1983, as stated in Item 2 of Appendix to Reference 1 and respectfully request the applicable portion of the Violation to be withdrawn.

We trust that this information will be satisfactory; however, should you have any questions or desire additional information, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

*Warren P. Murphy*  
Warren P. Murphy

Vice President and  
Manager of Operations

WPM/dm