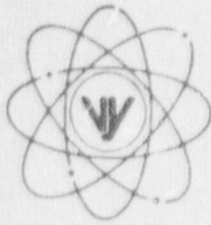


# VERMONT YANKEE NUCLEAR POWER CORPORATION



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

FVY 87-92

REPLY TO:

ENGINEERING OFFICE

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

September 10, 1987

U.S. Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19405

Attn: Edward C. Wenzinger, Chief  
Project Branch No. 3  
Division of Reactor Projects

References: a) License No. DPR-28 (Docket No. 50-271)  
b) Letter, USNRC to VYNPC, NNY 87-133, Inspection Report  
50-271/87-12, dated 8/21/87

Dear Sir:

Subject: Response to Inspection Report 50-271/87-12

During an NRC routine resident safety inspection conducted by Mr. D.R. Haverkamp on June 2-July 31, 1987, a violation of NRC requirements was identified. In accordance with the "General Statement Policy and Procedure for NRC Enforcement Actions", 10CFR Part 2, Appendix C (Enforcement Policy 1986), the violation is listed below.

Technical Specification 3.2.J was issued by Amendment 96 on August 11, 1986 and requires that the Toxic Gas Monitoring System be operable whenever the Control Room is required to be manned, with trip settings as specified in Table 3.2.7. Table 3.2.7 requires that a trip setting of 5 ppm be established for the redundant chlorine gas detector channels.

Contrary to the above, for a period of plant operations from August 11, 1986 until July 23, 1987, the redundant chlorine gas detection channels of the Toxic Gas Monitoring System had non-conservative trip setpoints at 7 ppm. The Control Room was required to be continually manned during this period due to the operational status of the plant.

It is noted that, subsequent to NRC inspection of the area on July 23, 1987, actions were taken by licensee personnel to establish 5 ppm trip setpoints in the redundant chlorine gas detection channels.

This is a Severity Level IV Violation (Supplement I.D.).

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#### RESPONSE

The FSAR states that the purpose of the chlorine analyzer is to monitor and protect the Control Room operators from a Control Room atmosphere of 15 ppm chlorine. The limit is based on the time the detectable limit at the outside duct and the toxicity limit inside the Control Room are reached following a chlorine accident near the Vermont Yankee plant.

An FSAR setpoint of 5 ppm was selected with a subsequent Technical Specification limit of  $\leq 5$  ppm. However, from the engineering analysis of a chlorine accident, a theoretical limit of 13.5 ppm would have been acceptable. Considering the limitations of the instrument, accuracy and response time, a 9 ppm limit was the absolute upper value for the monitor. This yielded a 4 ppm margin from the design limit to the monitor setpoint. Therefore, since the current procedural alarm setpoint was 2 ppm over the FSAR/Technical Specification limit, the effect was not significant. Consequently, if a chlorine accident had occurred, the Control Room operators would not have been affected. Thus, the health and safety of the public was not endangered.

#### REASON FOR VIOLATION

The root cause of the event is that the Vermont Yankee tracking programs did not ensure that station procedure reviews were completed prior to incorporating an approved Technical Specification amendment. As a result, the calibration procedure did not specify the correct value for the chlorine analysis setpoint in the Toxic Gas Monitoring System. Licensee Event Report (LER) 87-03, detailing the occurrence, was submitted to the NRC on August 2, 1987.

#### CORRECTIVE ACTIONS

The following actions have been completed and the Toxic Gas Monitoring System for chlorine is now in full compliance with the Technical Specifications.

1. The Toxic Gas Monitor calibration procedure has been revised to reflect the alarm/initiating setpoint for the chlorine analyzer to  $3.75 \pm 0.25$  ppm. This revision accounts for instrument tolerances and drift in order to satisfy the Technical Specification requirements.
2. The existing in-house tracking program/procedure was changed in May 1987 (i.e., before this event occurred) as a result of an in-house Quality Assurance audit finding. The audit identified that no apparent administrative process or controls were in place to assure the timeliness or tracking of procedure reviews as a result of Technical Specification amendments.

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3. Upon receipt of an approved license amendment from the NRC, Vermont Yankee will administratively establish a date the amendment is to become effective, allowing time for procedure reviews and revisions to be approved. Procedure reviews will also be tracked by the in-house tracking program.

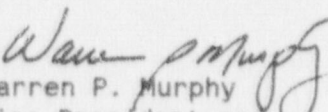
LONG TERM CORRECTIVE ACTION

The station Procedure Writers Guide will be revised by November 1, 1987 to incorporate a specific review of the applicable setpoints. This review will assure that new/revised setpoints are established and will consider expected instrument drift and tolerances to assure that Technical Specification requirements are met.

In summary, we believe that the corrective measures taken address this concern. We trust the information provided is acceptable, however, should you have further questions or desire additional information, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

  
Warren P. Murphy  
Vice President and  
Manager of Operations

/dm

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