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BVY 10-007

January 25, 2010

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Report of Bulk Chlorine Rail Shipments - 2009
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

- References: (a) Letter, VYNPC to USNRC, "Proposed Change No. 162, Toxic Gas Monitoring System," BVY 91-02, dated January 15, 1991
- (b) Letter, USNRC to VYNPC, "Issuance of Amendment No. 132 to Facility Operating License No. DPR-28 – Vermont Yankee Nuclear Power Station (TAC No. 79442)," NVY 91-205, dated October 24, 1991

Dear Sir or Madam:

In Reference (a), Vermont Yankee (VY) submitted a proposed change to the Technical Specifications requesting approval to remove the Toxic Gas Monitoring System. In Reference (b), the NRC granted approval and issued Amendment No. 132 to VY's Operating License. As a condition for granting the amendment, the NRC required that every three years, starting in 1994, VY submit a report providing the annual frequency of railroad shipments of bulk chlorine within five miles of the plant site. The NRC required the evaluation to verify that the probability of loss of Control Room habitability continues to meet the acceptance criteria of section 2.2.3 of the NRC Standard Review Plan (SRP) (NUREG-0800, July 1981). The NRC also required that the report consider any changes in the quantity of chlorine in each shipment and that the report reference the number and date of the license amendment. This letter constitutes the required report and summarizes our evaluation.

VY conducted an evaluation of rail shipments of bulk chlorine. The evaluation included the following:

1. A determination of the annual frequency of rail shipments of bulk chlorine within five miles of the plant site, and
2. Consideration of any changes in the quantity of chlorine in each shipment.

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Annual Frequency of Rail Shipments

The railroad companies that operate along the tracks adjacent to the plant provided information on bulk chlorine shipped during the three year period covering 2007, 2008 and 2009. It is noted from this information that the total number of rail cars shipped by the rail companies was slightly more than the total of 60 rail cars per year for calendar year 2008, than assumed in the analysis assumptions supporting Reference (a). The other two years were below this quantity. An Engineering Calculation Markup was documented supporting Reference (a) and shows that the actual number of bulk rail cars for 2008 to be much less than the quantity that would challenge the SRP acceptance criteria.

Changes in Quantity of Chlorine

Chlorine shipments were in individual tank cars that were confirmed to be within (less than) the assumed tank car capacity used in our analysis.

There are no new regulatory commitments contained in this submittal.

Should you have any questions concerning this matter or require additional detail, please contact me at (802) 451-3304.

Sincerely,



[DJM/JTM]

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