VERMONT YANKEE NUCLEAR POWER CORPORATION



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BVY 89-83

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September 1, 1989

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

Attention: Document Control Desk

References: a) License No. DPR-28 (Docket No. 50-271) b) Letter, VYNPC to USNRC, FVY 88-16, dated 3/1/88

Dear Sir:

Subject: Vermont Yankee Containment Safety Initiatives Status Update

Vermont Yankee provided a status report [Reference b)] with regard to implementation of an enhanced containment spray capability, and ongoing investigation into the need for a containment overpressure protection (COP) capability associated with postulated severe accident scenarios.

Since our March 1, 1988 letter, Vermont Yankee has completed the installation of an enhanced containment spray capability. The enhanced containment spray capability was shown to have benefits for beyond design basis events without adversely affecting plant capabilities with regard to design basis events. NRC and industry studies have shown that for certain scenarios, the enhanced containment spray capability provides significant benefit for plant severe accident (beyond design basis) mitigation. In addition to enhanced containment spray capability, this modification enhances the capability to inject water to the reactor core.

Our letter also indicated that efforts were continuing in order to assess the value of venting as a means to provide containment overpressure protection. Based upon our continuing evaluation of the investigations by the NRC, industry, and Vermont Yankee, we have concluded that an enhanced COP could be of some benefit during certain severe accident events. Providing that the overpressure protection would not reduce the overall margin of safety, is of a passive design, and is designed such that it in no way adversely affects the existing design basis, Vermont Yankee believes that such a feature could provide an overall enhancement in our ability to respond to a severe accident.

Vermont Yankee expects to establish specific design criteria such that we can install enhanced containment overpressure protection capability by the end of the 1992 refueling outage.

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The design will consist of a hardened vent line from the wetwell vapor space to the plant stack. The basic design objective is to provide sufficient capability to prevent long-term overpressurization of the containment. The exhaust path will have the capability to be isolated by a suitable isolation valve.

Vermont Yankee will continue to support and follow the various efforts in progress aimed at resolving severe accident issues. We feel that installation of an enhanced containment overpressure protection capability, in addition to the enhanced containment spray capability that we installed during our last (1989) refueling outage, demonstrates Vermont Yankee's ongoing commitment toward improving overall plant safety.

We will keep the NRC informed on the progress of our design and our final plans for implementation. If you have any questions or concerns, please do not hesitate to contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

ana Warren P. Murphy Vice President and

Manager of Operations

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cc: USNRC Regional Administrator, Region I USNRC Resident Inspector, VYNPS USNRC Project Manager, VYNPS