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REPLY TO:

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November 25, 1981



United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation
Mr. D. G. Eisenhut, Director
Division of Licensing

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) Letter, USNRC to VYNPC, dated July 27, 1981

Subject: NUREG-0737, Item II.B.3, Post-Accident Sampling Capability

Dear Sir:

We have completed review of the apparent NRC basis for the required short term post accident chloride sampling and analysis. We are still not convinced that the value of compulsory sampling and analysis at our facility would be worth the personnel exposure required to perform those tasks. Although the staff has indicated that this sampling and analysis may be accomplished using automated techniques, the availability and reliability of the necessary equipment forces us to conclude that reliable, qualified, automatic equipment is not available.

Throughout the combined operating history of the plants in the Yankee organization, no situation has been encountered where significant chloride intrusion into the primary coolant system has occurred. During almost forty reactor years of operation, no mechanism has been identified by which significant chloride contamination could occur without the presence of serious system failures which, in themselves, would result in appropriate operator action to correct the problem. At this time, we still do not believe that it is possible for significant chloride contamination of the reactor coolant system to take place in the absence of multiple system failures which could not be overlooked by an operator, even in a post-accident scenario. Our determination is based on the following facts:

- 1) Technical Specifications define both chloride and conductivity limits for reactor cooling water. To meet these requirements, it is necessary to maintain all reactor make up water, including the large volumes reserved for ECCS systems use, below the Technical Specification limit.

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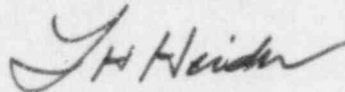
- 2) After the postulated accident begins, it is this chloride-free water that will be used to keep the core covered and cool down the plant, thus eliminating chlorides while the system is at elevated temperature and pressure, the principle conditions necessary for chloride stress corrosion cracking.
- 3) The probable source of chloride contamination at TMI, large amounts of chloride contaminated boric acid, does not exist at Vermont Yankee. Although Vermont Yankee does have a standby liquid control system which uses a sodium pentaborate solution for emergency reactivity control, this system utilizes a relatively small volume of this solution. It is not probable that this system would be a source of post-accident chloride contamination.

For the reasons discussed above, we cannot responsibly commit to compulsory post-accident sampling and analysis for chlorides. We are convinced that our position, which provides the option to utilize the capabilities inherent in the current system design to provide any necessary information, is more appropriate. With our present system design, we will be able to obtain a sample of primary coolant and perform a chloride analysis on that sample within four days after an accident occurs if we deem such action to be appropriate. This capability will only be utilized following a management decision that exposure associated with such a sample is warranted based on the accident conditions and other control room indications.

Vermont Yankee believes that this position satisfies the intent of NUREG-0737, Item II.B.3 as it applies to our facility. Should you have further questions regarding this information, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION



L. H. Heider
Vice President