



VERMONT YANKEE NUCLEAR POWER CORPORATION

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FVY-81-9
B 3.2.1

REPLY TO:
ENGINEERING OFFICE
TURNPIKE ROAD
WESTBORO, MASSACHUSETTS 01581
TELEPHONE 617-366-9011

January 13, 1981

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

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

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) USNRC Letter, D. G. Eisenhut to All Licensees of Operating
Plants, dated October 31, 1980
(c) VYNPC Letter, L. H. Hilder to D. G. Eisenhut, dated
December 15, 1980

Dear Sir:

Subject: Exceptions Taken to Certain Post-TMI Requirements

Reference (b) transmitted all TMI-related items approved for implementation by the Commission as of October 31, 1980. Reference (c) provided a tabulation by item of the requirements specified in Reference (b) and our specific plans addressing each one.

The attachment to this letter details the exceptions taken to certain items Reference (b). It should be noted that although exceptions are noted, action has been taken on the item of concern. In one case a different date for the availability of final design details is proposed. If it becomes apparent that for any reason the date given cannot be met, the NRC will be contacted as soon as possible.

We trust the information contained in the attachment adequately documents Vermont Yankee's reasons for taking exception to certain items given in Reference (b) and our intended actions. If additional clarification of our

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Very truly yours,

L. H. Heider
L. H. Heider
Vice President

COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) ss)

Robert H. Groce
Robert H. Groce Notary Public
My Commission Expires September 14, 1984



Attachment

II.F.1., Attachment 1, Noble Gas Effluent Monitor

Table II.F.1-1 (High Range Noble Gas Effluent Monitors) states that the high range noble gas monitor should have a continuous and recording display in equivalent Xe-133 concentration or uCi/cc of actual noble gases. However, clarification (4)(b) requires consideration of the radionuclide spectrum distribution as a function of time after shutdown. Because of these conflicting requirements, we have chosen to have the instrument readout in dose rate (i.e., mr/hr). Conversion to equivalent Xe-133 concentration and/or actual noble gas concentration is accomplished by procedure.

NUREG 0737 requires final design details to be available for review by January 1, 1981. However, due to work still being performed by the vendor and in-house, final design details will not be available until May 1, 1981.

II.F.1. Attachment 2: Sampling and Analysis of Plant Effluents

The design basis shielding envelope used for the stack sampling medium assumes the charcoal is exposed to 10^2 uCi/cc (I-131) for 30 minutes. For the following reasons Vermont Yankee takes issue with the design basis shielding envelope:

- a. Calculations based on the above assumptions and the stack sampler flow rate yield 85 Ci of I-131 on the charcoal sampler. This activity only reflects the I-131 component and when other noble gases are included, the activity is significantly increased. Plant personnel would not be allowed to handle a sample of such high activity.
- b. This concentration of I-131 can only be produced at the stack by purging a containment fuel-melt LOCA source term directly to the stack at an un-filtered high flow rate. This sequence of events is not possible at the Vermont Yankee plant. All other sources of I-131 release to the stack would produce I-131 concentrations that are decades below 10^2 uCi/cc.
- c. In the event of a high level halogen release from the plant there exist more reliable and reasonable methods for a quantitative assessment of the release. This can be accomplished through a direct measurement of the source or offsite sampling for I-131.
- d. As indicated by the Commission Meeting on Iodine Release From Accidents and Estimates of Consequences of Nuclear Accidents on Tuesday, November 18, 1980, the halogen component available for release from a LOCA is much less than that assumed for DBA's (25 percent of core inventory) due to a much higher degree of plateout and other effects. Therefore, even under the condition in which a LOCA atmosphere in containment is vented directly to the stack, the realistic halogen component would be very low.

The plant has the capability to continuously sample plant gaseous effluents for post-accident (analysis) release of radioactive iodines and particulates. Onsite laboratory facilities are provided to measure and/or analyze the samples. Detailed procedures have been developed concerning the handling and analysis of these samples as well as provisions to minimize noble gas interference.

III.D.3.3., Improved Inplant Iodine Instrumentation Under Accident Conditions

The clarification for this item requires the use of portable instruments using sample media that will collect iodine selectively over xenon (e.g., silver zeolite). The clarification goes on to state the sample should first be purged of any entrapped noble gases using nitrogen gas or clean air free of noble gases.

Yankee takes exception to the requirement that iodine-selective sampling media be used instead of charcoal. The clarification requires purging of the media even though it is iodine-specific. This is presumably to remove noble gases in the cartridge free air volume. Use of charcoal and compressed (bottled) air will accomplish the same purpose.