Telephone (617) 872-8100 TWX 710-380-7619

YANKEE ATOMIC ELECTRIC COMPANY



1671 Worcester Road, Framingham, Massachusetts 01701

July 16, 1987 FYR 87-75

United States Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

References: (a) License No. DPR-3 (Docket No. 50-29) (b) Letter, USNRC Region 1 to YAEC, Inspection No. 50-29/87-05, dated June 2, 1987

Subject: Emergency Response Facilities Audit, Open Items

Dear Sir:

Reference (b) is the Region 1 inspection report of the Emergency Response Facilities (ERFs) appraisal conducted at the Yankee Nuclear Power Station during the period of March 30, 1987 through April 3, 1987. The purpose of this letter is to respond to the open items identified in Reference (b) as Appendix B.

 Open Item No. 2 (50-29/87-05-03) states, "Perform a review and analysis of the Telecommunications System linking the plant SPDS with the EOF."

YAEC Response

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The Telecommunications System failures, which occurred during the audit have been reviewed and analyzed, after discussions with New England Telephone (NET) and American Telephone and Telegraph (AT&T) Communications.

The failures witnessed during the audit were of one-minute and three-minute duration. Since the line outage time was too short to trace the fault, the severe weather conditions at the time are suspected.

The statistics were reviewed to determine the availability of the SPDS to EOF data flow. Based on data between March 11, 1986 through April 2, 1987, the availability was 99.37%. Had an actual unusual event taken place during the communications system downtime, the dial backup system could have been initiated within 30 minutes.

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 Open Item No. 5 (50-29/87-05-04) states, "The licensee does not have the capability to calculate a site boundary thyroid dose from ine Control Room and TSC."

YAEC Response

Three new nomograms for calculating site boundary thyroid dose rates for the vapor container leakage, primary vent stack, and main steam line release pathways will be generated. In addition, the hand-held programmable HP41-C calculation methodology currently used by the Control Room and TSC personnel to project whole body dose rates at site boundary, will be upgraded to also project site boundary thyroid dose rates. These methodologies will produce thyroid dose rate projections based on existing radiation monitor readings (high range noble gas stack monitor, high range containment monitor, and main steam line radiation monitor) using a pre-determined, pathway-specific ratio of curies of iodine released to curies of total noble gas released. The nomogram methodology, including training, 'ill be completed by the end of February 1988.

The HP-41C methodology, including training, will be completed by the end of June 1988.

3. Open Item No. 4 (50-29/87-05-05) states, "The licensee does not have the capability to calculate release rates from the Safety Injection (SI) Building, or the subsequent whole body and thyroid dose from an SI Building release."

YAEC Response

A procedure will be developed and implemented for estimating release rates (e.g., building atmospheric concentrations and exit flow rates) from the SI Building. These release rates will then be available for input into a planned modification of the METPAC dose assessment model which will be used to calculate thyroid dose rates (whole body dose rates from an SI Building release would be negligible).

The activities described above, including training, are expected to be completed by the end of March 1988.

4. Open Item No. 5 (50-29/87-05-06) states, "The licensee does not have the capability to utilize post-accident Reactor Coolant Sample results for performing dose calculations."

YAEC Response

Reactor coolant sample results are an input into the evaluation of core condition following a severe accident. There is, however, no direct correlation between reactor coolant concentrations and off-site doses. United States Nuclear Regulatory Commission Attention: Document Control Desk July 16, 1987 Page 3 FYR 87-75

Yankee believes that off-site doses are best projected based on containment air concentrations and on release point radiation monitor readings since these can be correlated to off-site concentrations. Through the use of the primary or alternate containment atmosphere sampling locations, we are capable of obtaining the needed samples. No further action is planned for this item since Yankee evaluates this method to be timely and reliable.

If you have any questions concerning the above, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

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George Papanic, Jr. Senior Project Engineer, Licensing

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