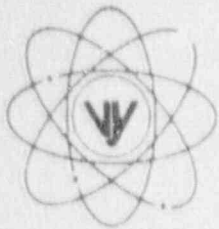


VERMONT YANKEE NUCLEAR POWER CORPORATION



Ferry Road, Brattleboro, VT 05301-7002

RELAY TO
ENGINEERING OFFICE
560 MAIN STREET
BOLTON, MA 01740
(508) 779-6711

April 19, 1991
BVY 91 - 41

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

References: [Listed on Page 3]

Subject: Response to Third Request for Additional Information on the Use of RELAP5YA

Dear Sir:

By Reference (o), USNRC approved the RELAP5YA program for use in best estimate Loss of Coolant Accident (LOCA) analyses. By Reference (p), Vermont Yankee provided supplementary information pertaining to our RELAP5YA LOCA analysis methodology for the purpose of justifying the use of the program in Evaluation Methodology analyses for Vermont Yankee, following the 10CFR 50 Appendix K approach.

The Vermont Yankee BWR LOCA licensing analysis method submitted on June 27, 1986 [Reference (n)] describes the method used to perform full break spectra cycle independent LOCA-ECCS licensing analyses in full compliance with applicable USNRC regulations contained in 10CFR 50.46 and 10CFR 50 Appendix K. This method uses the RELAP5YA code to model the Vermont Yankee plant and predict its thermal-hydraulic performance. When approved, this methodology will be utilized in combination with the FROSSTEY-2 Fuel Performance Code which is also presently under review at NRC to generate a new LOCA licensing analysis for Vermont Yankee.

References (q), (r), (s), and (t) constitute two sets of USNRC requests for additional information and subsequent responses by Vermont Yankee. In Reference (u), USNRC made a third request for additional information in order to complete review of the above described LOCA methodology, and requested a response within 30 days from letter receipt. Reference (u) was received by Vermont Yankee on April 17, 1991.

Enclosed please find Vermont Yankee's response to USNRC's third request for additional information per Reference (u). The enclosed information is considered proprietary and, in accordance with 10CFR2.790(b)(1), an affidavit attesting to the proprietary nature of the enclosure is attached.

WITHHOLD ENCLOSURE
FROM PUBLIC DISCLOSURE

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PDR ADOCK 05000271
PDR

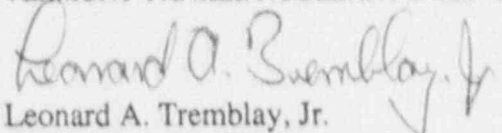
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United States Nuclear Regulatory Commission
April 19, 1991
Page 2

We trust that the enclosed information is responsive to your request and proves sufficient for you to complete your review of our RELAP5YA LOCA analysis methodology submittal. Approval of this methodology, in combination with approval of the FROSSTEY-2 Fuel Performance Code currently under NRC review, will allow Vermont Yankee to perform an improved LOCA analysis. Should additional information be required, please contact this office.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION



Leonard A. Tremblay, Jr.
Senior Licensing Engineer

cc: USNRC Region I Administrator (without Enclosure)
USNRC Resident Inspector - VYNPS (without Enclosure)
USNRC Project Manager - VYNPS (with Enclosure)
Mr. Lambrose Lois - USNRC (with Enclosure)

WITHHOLD ENCLOSURE
FROM PUBLIC DISCLOSURE