· VERMONT YANKEE NUCLEAR POWER CORPORATION



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REPLY TO ENGINEERING OFFICE 580 MAIN STREET BOLTON, MA 01740 (508) 779-6711

April 10, 1996 BVY 96-47

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

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) Letter, VYNPC to USNRC, BVY 94-07, dated February 11, 1994
(c) Letter, VYNPC to USNRC, BVY 94-110, dated November 8, 1995
(d) Letter, USNRC to VYNPC, NVY 95-02, dated February 6, 1995

Subject:

ect: Review of the SER Approving Vermont Yankee's Feedwater Nozzle Inspection Technique

In Reference (b), Vermont Yankee requested relief from the dye penetrant (PT) requirement and the ultrasonic examination (UT) schedule of NUREG-0619, as modified by Generic Letter 81-11. Vermont Yankee proposed to perform an automated ultrasonic examination of the feedwater nozzles from inside the reactor vessel, in lieu of the PT examination, at intervals not to exceed every fourth refueling cycle.

In reference (c), Vermont Yankee submitted a fracture mechanics evaluation and additional information on the inspection technique qualification program. In reference (d), the NRC approved the use of the UT technique in lieu of the PT examination of the feedwater nozzles for the spring 1995 refueling outage. The staff's evaluations and conclusions were contained in the safety evaluation report (SER) enclosed with reference (d).

A review of that SER revealed a discrepancy between Vermont Yankee's evaluation in reference (c) and the staff's SER in reference (d). On page 5 of the SER the staff states: "VY determined that a 0.5 inch deep nozzle blend crack will grow to the allowable limit, in approximately 35 duty cycles." On page 6, the staff states: "Based on the analysis completed by VY, a postulated crack in the FW nozzle blend region would require approximately 35 SU/SD cycles including all other anticipated transients to grow to the allowable limit." The analysis transmitted by Vermont Yankee in reference (c) states that "in 35 startup/shutdown design cycles a 0.50 inch initial flaw would grow to less than 0.56 inches, much less than the 0.823 inch ASME XI allowable flaw size."

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Vermont Yankee requests that the NRC revise the SER in reference (d) to reflect the fact that:

- Vermont Yankee determined that a 0.5 inch deep nozzle blend crack will grow to 0.56 inches, much less than the allowable limit, in approximately 35 startup/shutdown design cycles.
- Based on the analysis completed by VY, a postulated crack in the FW nozzle blend region would require more than 35 SU/SD cycles including all other anticipated transients to grow to the allowable limit.

We trust this information is complete; however, should you have additional questions, please contact this office.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

James J. Duffy

James J. Duffy Licensing Engineer

c: USNRC Region I Administrator USNRC Resident Inspector - VYNPS USNRC Project Manager - VYNPS