

VERMONT YANKEE NUCLEAR POWER CORPORATION

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BVY 01-19

U.S. Nuclear Regulatory Commission
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Washington, D.C. 20555

- References:
- (a) Letter, VYNPC to USNRC, "Request for Alternate Inspection Frequency for Weld Repair Overlays," BVY 00-102, dated October 31, 2000.
 - (b) BWRVIP-75, "BWR Vessel and Internals Project Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules," EPRI Report TR-113932, dated October 1999.
 - (c) Letter, USNRC to Carl Terry, BWRVIP Chairman, "Safety Evaluation of the 'BWR Vessel and Internals Project Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules (BWRVIP-75),' EPRI Report TR-113932, October 1999 (TAC No. MA5012)," dated September 15, 2000.
 - (d) BWRVIP-29, "BWR Water Chemistry Guidelines – 1996 Revision," EPRI TR-103515-R1, dated December 1996.

Subject: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
Average Reactor Coolant Conductivity for Vermont Yankee

In Reference (c), the NRC determined that the industry guidance proposed in Reference (b), as revised by NRC, may be utilized in lieu of previous commitments to Generic Letter (GL) 88-01. Specifically, for GL 88-01 Category E welds, Reference (c) provides the following inspection schedule:

After three successive satisfactory inspections (once every two refueling cycles) where no indications of crack growth or new cracking is found, the Category E welds repaired by weld overlay using resistant materials may be inspected at a frequency of 25% of the population every 10 years under normal water chemistry, and 10% every 10 years when hydrogen water chemistry and/or noble metal chemical addition is implemented.

In Reference (a), Vermont Yankee (VY) requested a revised inspection frequency based upon previous inspection results and use of resistant overlay material for two Core Spray system welds. On February 27, 2001, VY discussed this submittal with the Staff and determined that additional information was necessary to support our request based upon either the "normal water chemistry" case or "hydrogen water chemistry" case. Reference (c) states in Open Item 3.7, Reactor Water Coolant Conductivity:

The proposed reduction of inspection frequency is supported in part by the improved quality of reactor water chemistry. Therefore, to ensure maintaining good water chemistry, it is necessary to specify an acceptable average conductivity for reactor water coolant consistent with that currently experienced by the BWR fleet. The staff recommends that to qualify for the reduced inspection frequency, the average conductivity in the reactor water coolant should not exceed the recommendations in the BWRVIP-29 report, or later revisions.

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Listed below are 3 years of monthly average reactor coolant conductivity ($\mu\text{S}/\text{cm}$) readings sorted for reactor power greater than 0. (The lowest action level in the BWR Chemistry Guidelines would be 0.3 $\mu\text{S}/\text{cm}$ for these samples)

	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
January	0.096	0.089	0.090	0.092
February	0.098	0.090	0.086	0.093
March	0.108	0.091	0.086	
April	outage	0.091	0.088	
May	outage	0.092	0.084	
June	0.113	0.092	0.090	
July	0.095	0.096	0.087	
August	0.092	0.093	0.086	
September	0.095	0.090	0.092	
October	0.100	0.092	0.081	
November	0.089	outage	0.084	
December	0.087	0.101	0.088	

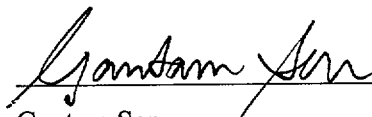
These typical values are well below the BWR Water Chemistry Guidelines. Additionally, our sampling procedure for the reactor coolant, utilizes the current BWR Water Chemistry Guidelines – 2000 Revision (EPRI TR-103515-R2) and contains the associated limits and action levels.

In conclusion, as VY only has two weld overlays that we are requesting the reduced inspection frequencies for, the lower inspection frequency criteria allowed with hydrogen water chemistry (10% every 10 years) does not further reduce the necessary inspections. Therefore, we are requesting approval for the reduced inspection frequency (25% every 10 years) based upon “normal water chemistry” for the Category E welds, as described in our Reference (a) submittal.

Should there be any questions concerning this submittal, or if you desire additional information, please contact Mr. Jeffrey Meyer at (802) 258-4105.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION


 Gautam Sen
 Licensing Manager

cc: USNRC Region 1 Administrator
 USNRC Resident Inspector – VYNPS
 USNRC Project Manager – VYNPS
 Vermont Department of Public Service

SUMMARY OF VERMONT YANKEE COMMITMENTS

BVY NO.: 01-19

The following table identifies commitments made in this document by Vermont Yankee. Any other actions discussed in the submittal represent intended or planned actions by Vermont Yankee. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager of any questions regarding this document or any associated commitments.

COMMITMENT	COMMITTED DATE OR "OUTAGE"
None	N/A