

VERMONT YANKEE NUCLEAR POWER CORPORATION

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BVY 00-109

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

- References:
- (a) The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-of-Coolant Accident, Volume III, SAFER/GESTR Application Methodology, NEDE-23785-1-P-A, General Electric Company, Revision 1, October 1984.
 - (b) Letter, C.O. Thomas (USNRC) to J.F. Quirk (GE), "Acceptance for Referencing of Licensing Topical Report NEDE-23785, Revision 1, Volume III (P), The GESTR-LOCA and SAFER models for the Evaluation of the Loss-of-Coolant Accident," June 1, 1984.
 - (c) NEDC-32814P, "Vermont Yankee Nuclear Power Station SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis," dated March 1998.
 - (d) 10CFR50.46 Notification Letter, G.A.Watford (GE), "Vermont Yankee Steam Separator OD Error," dated March 16, 2000.
 - (e) 10CFR50.46 Notification Letter, G.A.Watford (GE), "Impact of SAFER Time Step Size on the Peak Clad Temperature (PCT) for Jet Pump Plant Analyses," dated November 8, 2000.

**Subject: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
Annual 10CFR50.46(a)(3)(ii) Report for 2000**

The purpose of this letter is to report, in accordance with 10CFR50.46(a)(3)(ii), changes in peak cladding temperature (PCT) for Vermont Yankee's (VY) Emergency Core Cooling System (ECCS) Loss of Coolant Accident (LOCA) analysis. This annual report covers Cycle 21 from January to December 2000.

For Cycle 21, Vermont Yankee has used the General Electric (GE) SAFER/GESTR model for evaluation of the ECCS/LOCA (Reference a). This model has been approved by the USNRC in Reference (b) and is currently being utilized at the majority of operating Boiling Water Reactors. A plant specific analysis for VY was performed using SAFER/GESTR-LOCA methodology. The analysis was documented in Reference (c).

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In Reference (d), GE assessed the impact of an error in the assumed outside diameter (OD) of the steam separator shell. As part of the assessment a reduced time step size for the fuel rod temperature calculation was used. The smaller time step reduced the PCT by 11 degrees F and the correction for the OD error increased the PCT by 7 degrees F. The overall impact of these two changes resulted in a net reduction of 4 degrees F in calculated PCT.

In Reference (e), GE assessed the impact of a reduction in the SAFER time step size and determined that it resulted in a reduction of 5 degrees F in calculated PCT.

The above changes did not constitute "significant changes" as described in 10CFR50.46(a)(3)(i) and therefore, were not previously reported.

As a result of the use of the approved SAFER/GESTR model, including fuel changes and incorporation of methodology errors or changes, the limiting licensing basis fuel rod PCT for Cycle 21 remains less than 1850°F, the same value as last cycle.

If you have any questions concerning this report, please contact Mr. Jim DeVincentis at (802) 258-4236.

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.: 00-109

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