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January 17, 2005

Docket No. 50-271

BVY 05-04

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U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

- References:
- (a) Global Nuclear Fuel Report, 0000-0016-6419-SRLR, Rev. 0, Supplemental Reload Licensing Report for Vermont Yankee Nuclear Power Station, Reload 23/Cycle 24, March 2004.
  - (b) Letter, S.A. Richards (USNRC) to J.F. Klapproth (GE), Review of NEDE-23785P, Volume III, Supplement 1, Revision 1, "GESTR-LOCA and SAFER Models for Evaluation of Loss of Coolant Accident, Volume III, Supplement 1, Additional Information for Upper Bound PCT Calculation," February 1, 2002.
  - (c) Letter, Vermont Yankee Nuclear Power Station, 10CFR50.46(a)(3)(ii) Annual Report for 2003, BVY 03-111, dated December 5, 2003.

**Subject: Vermont Yankee Nuclear Power Station  
License No. DPR-28 (Docket No. 50-271)  
10CFR50.46(a)(3)(ii) Annual Report for 2004**

This letter is to report, in accordance with 10CFR50.46(a)(3)(ii), changes in peak cladding temperature (PCT) for the Vermont Yankee (VY) Emergency Core Cooling System (ECCS) Loss of Coolant Accident (LOCA) analysis. This annual report covers VY Cycle 23, from January 2004 to April 2004 and Cycle 24 from May 2004 to December 2004.

For Cycle 24, VY used the General Electric (GE) SAFER/GESTR methodology for the evaluation of the ECCS/LOCA. The results of the analysis are summarized in Reference (a). The SAFER/GESTR-LOCA analysis is based on a power level of 1912 MWth. This power level bounds any lower power levels. The GE methodology has been approved by the NRC in Reference (b). The Licensing Basis PCT calculated for the three fuel types and including the 10CFR50.46 corrections for 2003 was reported in Reference (c).

The Cycle 24 SAFER/GESTR-LOCA results summarized in Reference (a) incorporated all the 50.46 errors up to notification number 2003-03. The following table updates the results to reflect subsequent errors identified in the methodology for all VY fuel types.

Acc 1

**Summary of 10CFR50.46 Errors for Vermont Yankee (2004)**

10 CFR 50.46 Error Identification	10CFR 50.46 Error Description	Licensing Basis $\Delta$ PCT (°F)		
		GE-14	GE-13	GE-9NB
2003-05	Impact of Postulated Hydrogen-Oxygen Recombination, dated 5/13/2004	0	0	0
2004-01	Pilgrim Specific 50.46 Notification Not Applicable to VY	N/A	N/A	N/A
Total $\Delta$ PCT (°F)		0	0	0
Previous Licensing Basis PCT [from Reference (a)]		1960°F	1940°F	1940°F
Adjusted Licensing Basis PCT		1960°F	1940°F	1940°F

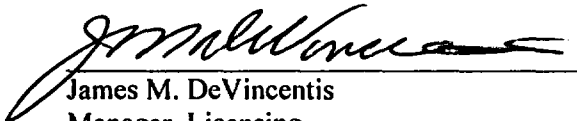
The SAFER/GESTR-LOCA analysis results for GE-9NB fuel are bounded by GE-13 and thus are less than the value documented above

Since the PCT for GE-14, GE-13 and GE-9NB fuel types are well within the acceptance criterion of 50.46(b)(1), there is no need for reanalysis or other action per 50.46(a)(3)(ii).

There are no new commitments being made in this submittal.

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

Sincerely,

  
 James M. DeVincentis  
 Manager, Licensing  
 Vermont Yankee Nuclear Power Station

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