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BVY 10-033

June 7, 2010

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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

- REFERENCES: (1) Letter, Entergy to USNRC, Vermont Yankee Nuclear Power Station 10CFR50.46(a)(3)(ii) Annual Report for 2009, BVY 10-001, dated January 14, 2010
- (2) Global Nuclear Fuel Report, 0000-0100-8140-SRLR, Revision 2, Supplemental Reload Licensing Report for Vermont Yankee Nuclear Power Station Reload, Cycle 28, dated May 2010

Dear Sir or Madam:

This letter is to report, in accordance with 10CFR50.46(a)(3)(ii), a change in peak cladding temperature (PCT) for the Vermont Yankee (VY) Emergency Core Cooling System (ECCS) Loss of Coolant Accident (LOCA) analysis. This report covers initial operation of VY Cycle 28 commencing in May 2010.

Since the last 10CFR50.46 report provided to the NRC (Reference 1), VY loaded a new fuel type (GNF2) necessitating a change in PCT. The new licensing basis PCT, calculated for the GE14 and GNF2 fuel types VY currently has loaded in its core, is documented in Reference (2). Additionally, since 2007 VY has had four GNF2 Lead Use Assemblies (LUAs) in the core. The GNF2 LUA bundles in the Cycle 28 core have been evaluated as Lead Use Assemblies. The limiting PCT for these bundles is confirmed to remain below the 10CFR50.46 limit of 2200°F.

For Cycle 28, VY used the General Electric (GE) SAFER/GESTR methodology for the evaluation of the ECCS/LOCA. The results are summarized and reported in Reference (2).

The following table summarizes the current ECCS performance analysis results performed by Global Nuclear Fuels (GNF) using their NRC approved methodology, for the VY Cycle 28 fuel types.

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Summary of 10CFR50.46 Changes for Vermont Yankee

10CFR50.46 Change Identification	10CFR50.46 Change Description	Licensing Basis Delta PCT (deg F) for:	
		GE14	GNF2
Cycle 28 Reload	GNF2 fuel type introduction	0	N/A
	Total Delta PCT	0	N/A
	Previous Licensing Basis PCT from Reference (b)	1960	N/A
	Current Licensing Basis PCT	1960	2060

Since the PCT for the GE14/GNF2 fuel types is within the acceptance criterion of 10CFR50.46(b)(1), there is no need for re-analysis or other licensee action per 10CFR50.46(a)(3)(ii).

There are no new regulatory commitments being made in this submittal.

If you have any questions concerning this submittal, please contact me at (802) 451-3150.

Sincerely,



[JMD/JTM]

cc: Mr. Samuel J. Collins, Region 1 Administrator
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