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EM

Michael J. Colomb  
Site Vice President

BVY 11-015

February 15, 2011

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

SUBJECT: License Renewal Application Supplemental Information  
Vermont Yankee Nuclear Power Station  
Docket No. 50-271  
License No. DPR-28

REFERENCES: 1. Letter, Entergy to USNRC, "License Renewal Application," BVY 06-09, dated January 25, 2006

Dear Sir or Madam:

On January 25, 2006, Entergy Nuclear Operations, Inc. and Entergy Nuclear Vermont Yankee, LLC (Entergy) submitted the License Renewal Application (LRA) for the Vermont Yankee Nuclear Power Station (VYNPS) as indicated by Reference 1.

Attachment 1 of this letter provides supplemental information to the LRA to address questions discussed with the NRC staff on a teleconference held on February 15, 2011.

This letter contains no new regulatory commitments.

Should you have any questions or require additional information concerning this submittal, please contact Mr. Robert Wanczyk at 802-451-3166.

I declare under penalty of perjury, that the foregoing is true and correct.

Executed on February 15, 2011.

Sincerely,

[MJC/PLC]

STATE OF VERMONT  
DEPT OF PUBLIC SERVICE  
MONTPELIER, VT.  
05620-2601  
2011 FEB 17 A 9:26

Attachments: 1. License Renewal Application Supplemental Information

cc: Mr. Eric J. Leeds, Director  
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U.S. Nuclear Regulatory Commission  
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USNRC Resident Inspector  
Entergy Nuclear Vermont Yankee  
320 Governor Hunt Road  
Vernon, Vermont 05354

Ms. Elizabeth Miller, Commissioner  
VT Department of Public Service  
112 State Street – Drawer 20  
Montpelier, Vermont 05620-2601

**Attachment 1**

**Vermont Yankee Nuclear Power Station  
License No. DPR-28 (Docket No. 50-271)**

**License Renewal Application**

**Supplemental Information**

**Vermont Yankee Nuclear Power Station  
License Renewal Application - Supplemental Information**

Vermont Yankee Nuclear Power Station (VYNPS) provides the following supplemental information to address questions discussed with the NRC staff on a teleconference held on February 15, 2011.

**Background**

VYNPS provided additional information related to the Neutron Absorber Monitoring Program in License Renewal Application (LRA) supplemental information letters dated October 14, 2010 (BVY 10-052), December 21, 2010 (BVY 10-058), February 4, 2011 (BVY 11-010) and February 10, 2011 (BVY 11-013). The LRA indicated that the Water Chemistry Control – BWR Program was the only aging management program for neutron absorbing materials in the spent fuel racks. This letter provides administrative changes to the LRA to clarify that the Neutron Absorber Monitoring Program is also credited as an aging management program for neutron absorbing material in the spent fuel racks.

The list of aging management programs in Section 3.3.2.1.5 of the LRA is revised to read as follows:

**3.3.2.1.5 Fuel Pool Cooling Systems**

**Aging Management Programs**

The following aging management programs manage the effects of aging on fuel pool cooling systems components.

- Service Water Integrity
- System Walkdown
- Water Chemistry Control – BWR
- Neutron Absorber Monitoring

Section 3.3.2.2.6 of the LRA is revised to read as follows:

**3.3.2.2.6 Reduction of Neutron-Absorbing Capacity and Loss of Material due to General Corrosion**

Loss of material and cracking are aging effects requiring management for Boral spent fuel storage racks exposed to a treated water environment. These aging effects are managed by the Water Chemistry Control – BWR Program.

The Neutron Absorber Monitoring Program manages the reduction in neutron-absorbing capacity and loss of material.

Item number 3.3.1-13 of LRA Table 3.3.1 is revised to read as follows:

<b>Table 3.3.1: Auxillary Systems, NUREG-1801 Vol. 1</b>					
<b>Item Number</b>	<b>Component</b>	<b>Aging Effect/Mechanism</b>	<b>Aging Management Programs</b>	<b>Further Evaluation Recommended</b>	<b>Discussion</b>
3.3.1-13	Boral, boron steel spent fuel storage racks neutron-absorbing sheets exposed to treated water or treated borated water	Reduction of neutron-absorbing capacity and loss of material due to general corrosion	Plant specific	Yes, plant specific	The Water Chemistry Control – BWR program manages loss of material. The Neutron Absorber Monitoring Program manages reduction of neutron-absorbing capacity and loss of material. See Section 3.3.2.2.6

The aging management evaluation for the neutron absorber (Boral) components in LRA Table 3.3.2-5 is revised to read as follows:

<b>Table 3.3.2-5: Fuel Pool Cooling Systems</b>								
<b>Component Type</b>	<b>Intended Function</b>	<b>Material</b>	<b>Environment</b>	<b>Aging Effect Requiring Management</b>	<b>Aging Management Programs</b>	<b>NUREG-1801 Vol. 2 Item</b>	<b>Table 1 Item</b>	<b>Notes</b>
Neutron absorber (Boral)	Neutron absorption	Aluminum/boron carbide	Treated water (ext)	Cracking	Water Chemistry Control - BWR		3.3.1-13	H
Neutron absorber (Boral)	Neutron absorption	Aluminum/boron carbide	Treated water (ext)	Loss of material	Water Chemistry Control - BWR	VII.A2-3 (A-89)	3.3.1-13	E
Neutron absorber (Boral)	Neutron absorption	Aluminum/boron carbide	Treated water (ext)	Loss of neutron-absorbing capacity/Loss of material	Neutron Absorber Monitoring	VII.A2-3 (A-89)	3.3.1-13	A

- References:
1. Letter, Entergy to USNRC, "License Renewal Application Supplemental Information," BVY 11-013, dated February 10, 2011
  2. Letter, Entergy to USNRC, "License Renewal Application Supplemental Information," BVY 11-010, dated February 4, 2011
  3. Letter, Entergy to USNRC, "License Renewal Application Supplemental Information," BVY 10-058, dated December 21, 2010
  4. Letter, Entergy to USNRC, "License Renewal Application Supplemental Information," BVY 10-052, dated October 14, 2010