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May 29, 2008

BVY 08-031

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

- References: (1) Letter, USNRC to Entergy, "Vermont Yankee Nuclear Power Station – Issuance of Amendment RE: Emergency Diesel Generator Fuel Oil Tank Volume, Fuel Oil Testing and Reactor Building Crane Inspections (TAC No. MD7054)," NVY 08-040, dated April 17, 2008
- (2) Letter, VYNPC to USNRC, "Control of Heavy Loads," FVY 81-134, dated September 11, 1981

**Subject: Vermont Yankee Nuclear Power Station  
License No. DPR-28 (Docket No. 50-271)  
Revision of Technical Specification Bases Page**

Dear Sir or Madam,

This letter provides a revised Technical Specification (TS) Bases page. TS Bases page 239 was revised to be consistent with the changes approved by NRC and issued as Amendment 231 to the Vermont Yankee Operating License in Reference (1). The change involved relocation of the specific ASTM standard used for inspection of the Reactor Building Crane. In addition, the version of the ASTM standard was updated based on commitments made in Reference (2).

This change to the TS Bases has been determined to not require a license amendment in accordance with 10CFR50.59 and therefore does not require prior NRC approval.

A revised TS Bases page is attached for your records. No NRC action is requested on this submittal.

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

If you have any questions concerning this submittal, please contact Mr. David J. Mannai at (802) 451-3304.

Sincerely,

Ted A. Sullivan  
Site Vice President  
Vermont Yankee Nuclear Power Station

Attachment: Revised Technical Specification Bases Page  
cc list (next page)

A001  
NRC

cc: Mr. Samuel J. Collins, Region 1 Administrator  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

Mr. James S. Kim, Project Manager  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

USNRC Resident Inspector  
Vermont Yankee Nuclear Power Station  
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Mr. David O'Brien, Commissioner  
VT Department of Public Service  
112 State Street, Drawer 20  
Montpelier, VT 05620-2601

Docket No. 50-271  
BVY 08-031

Attachment 1

Vermont Yankee Nuclear Power Station

Revised Technical Specification Bases Page

VYNPS

BASES: 3.12 & 4.12 (Cont'd)

- E. The intent of this specification is to permit the unloading of a portion of the reactor core for such purposes as inservice inspection requirements, examination of the core support plate, control rod, control rod drive maintenance, etc. This specification provides assurance that inadvertent criticality does not occur during such operation.

This operation is performed with the mode switch in the "Refuel" position to provide the refueling interlocks normally available during refueling as explained in the Bases for Specification 3.12.A. In order to withdraw more than one control rod, it is necessary to bypass the refueling interlock on each withdrawn control rod which prevents more than one control rod from being withdrawn at a time. The requirement that the fuel assemblies in the cell controlled by the control rod be removed from the reactor core before the interlock can be bypassed ensures that withdrawal of another control rod does not result in inadvertent criticality. Each control rod essentially provides reactivity control for the fuel assemblies in the cell associated with that control rod. Thus, removal of an entire cell (fuel assemblies plus control rod) results in a lower reactivity potential of the core.

One method available for unloading or reloading the core is the spiral unload/reload. Spiral reloading and unloading encompass reloading or unloading a cell on the edge of a continuous fueled region (the cell can be reloaded or unloaded in any sequence.) The pattern begins (for reloading) and ends (for unloading) around a single SRM. The spiral reloading pattern is the reverse of the unloading pattern, with the exception that two diagonally adjacent bundles, which have previously accumulated exposure in-core, and placed next to each of the four SRMs before the actual spiral reloading begins. The spiral reload can be to either the original configuration or a different configuration.

Additionally, at least 50% of the fuel assemblies to be reloaded into the core shall have previously accumulated a minimum exposure of 1000 Mwd/T to ensure the presence of a minimum neutron flux as described in Bases Section 3.12.B.

- F. The intent of this specification is to assure that the reactor core has been shut down for at least 24 hours following power operation and prior to fuel handling or movement. The safety analysis for the postulated refueling accident assumed that the reactor had been shut down for 24 hours for fission product decay prior to any fuel handling which could result in dropping of a fuel assembly.
- G. The operability requirements of the reactor building crane ensures that the redundant features of the crane have been adequately inspected just prior to using it for handling of a spent fuel cask. The redundant hoist system ensures that a load will not be dropped for any postulated credible single component failures. Crane inspections and crane rope replacement criteria shall meet the requirements of ANSI Standard B30.2-1976. Details of the design of the redundant features of the crane and specific testing requirements for the crane are delineated in the Vermont Yankee document entitled "Reactor Building Crane Modification" (December 1975).
- H. The Spent Fuel Pool Cooling System is designed to maintain the pool water temperature below 125°F during normal refueling operations. If the reactor core is completely discharged, the temperature of the pool water may increase to greater than 125°F. The RHR System supplemental fuel pool cooling may be used under these conditions to maintain the pool water temperature less than 150°F.