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August 12, 2004

Docket No. 50-271  
BVY 04-083

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

Subject: **Vermont Yankee Nuclear Power Station**  
**RELAP5/MOD3 Computer Code**

Reference: 1) Entergy letter to U.S. Nuclear Regulatory Commission, "Vermont Yankee Nuclear Power Station, Technical Specification Proposed Change No. 263, Extended Power Uprate," (BVY 03-80) September 10, 2003

Through discussions with the NRC staff, Entergy understands that the NRC staff is conducting sensitivity analyses to independently confirm certain calculations and evaluations that support the extended power uprate (EPU) license amendment application for the Vermont Yankee Nuclear Power Station (VYNPS) that was submitted on September 10, 2003 (Reference 1). In this regard, the NRC staff has requested that Entergy provide a copy of the computer code RELAP5/MOD3 basedeck. Although VYNPS-specific data for EPU have been added, the RELAP5/MOD3 basedeck is historical and has not been used to support the VYNPS licensing basis, including the application for EPU. Consequently, Entergy has not confirmed the accuracy or applicability of the information contained in the basedeck in accordance with Entergy's quality assurance program. Attachment 1 is a copy of the basedeck on a CD-ROM disk.

The computer codes in the RELAP5 series were developed through Idaho National Engineering Laboratory and are general purpose, thermal hydraulic system codes used primarily to simulate the response of the nuclear steam supply system to a wide variety of postulated transients and accidents.

There are no new regulatory commitments contained in this submittal.

If you have any questions or require additional information, please contact Mr. James DeVincentis at (802) 258-4236.

Sincerely,

  
James DeVincentis  
Manager, Licensing  
Vermont Yankee Nuclear Power Station

Attachment (1)

AC01

cc: **Mr. Richard B. Ennis, Project Manager (w/attachment)**  
**Project Directorate I**  
**Division of Licensing Project Management**  
**Office of Nuclear Reactor Regulation**  
**Mail Stop O 8 B1**  
**Washington, DC 20555**

**Mr. Samuel J. Collins (w/o attachment)**  
**Regional Administrator, Region 1**  
**U.S. Nuclear Regulatory Commission**  
**475 Allendale Road**  
**King of Prussia, PA 19406-1415**

**USNRC Resident Inspector (w/o attachment)**  
**Entergy Nuclear Vermont Yankee, LLC**  
**P.O. Box 157**  
**Vernon, Vermont 05354**

**Mr. David O'Brien, Commissioner (w/o attachment)**  
**VT Department of Public Service**  
**112 State Street – Drawer 20**  
**Montpelier, Vermont 05620-2601**

**Attachment 1**  
**Vermont Yankee Nuclear Power Station**  
**RELAP5/MOD3 Computer Code**

**Total number of pages in Attachment 1  
(excluding this cover sheet) is 0. The  
Attachment is a CD-ROM disk.**