

**VERMONT YANKEE  
NUCLEAR POWER CORPORATION**

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August 11, 2000  
BVY 00-69

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

Reference: (a) Letter, VYNPC to USNRC, "Request for Relief from the American Society of Mechanical Engineers Code for Repair of a Reactor Building Recirculation Unit," BVY 00-50, dated June 1, 2000

Subject: **Vermont Yankee Nuclear Power Station  
License No. DPR-28 (Docket No. 50-271)  
Supplement to Request for Relief from the American Society of Mechanical Engineers Code for Repair of a Reactor Building Recirculation Unit**

In reference (a), Vermont Yankee (VY) requested, pursuant to 10 CFR 50.55a(g)(5)(iii), approval to delay the repair of an intermittent pin-hole leak on Reactor Building Recirculation Unit No. 8 (RRU-8) until the scheduled 2001 refuel outage. RRU-8 is a Safety Class 3 component that provides room cooling for Emergency Core Cooling System equipment located in the Reactor Building.

Based on a June 22, 2000 telecon with NRC staff, VY agreed to perform additional structural analysis and provide the results for staff review. Attachment 1 provides a summary of the results of this analysis that further demonstrates that the RRU remains capable of performing its safety functions.

We trust that this information is adequate to support the requested action, however; should you need additional information please contact Mr. Jim DeVincentis at (802) 258-4236.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

  
\_\_\_\_\_  
Gautam Sen  
Licensing Manager

Attachment

cc: USNRC Region 1 Administrator  
USNRC Resident Inspector - VYNPS  
USNRC Project Manager - VYNPS  
Vermont Department of Public Service

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Docket No. 50-271  
BVY 00-69

**Attachment 1**

**Vermont Yankee Nuclear Power Station**

**Summary of Structural Analysis Supporting Requested ASME Code Relief for RRU-8**

## **SUMMARY OF STRUCTURAL ANALYSIS**

During a routine plant tour, the VY Operations Department identified a "pin-hole" leak at an internal joint of Reactor Building Recirculation Unit No. 8 (RRU-8). The leak is located on the horizontal inlet stub connection for the cooling coil where it joins the cooling coil's vertical inlet header manifold. The inlet stub connection is a 2½ inch diameter class M copper tube (i.e., 2.625 inch OD, 0.065 inch wall thickness).

The identified deficiency is a localized defect, associated with the brazed joint. The 2.625 inch diameter brazed joint is intact with the exception of the pin-hole area at the top of the joint. The "pin-hole" was visually identified to be less than 1/16 inch in diameter.

A calculation was performed to evaluate the structural integrity of the RRU-8 inlet stub connection with the identified condition. The calculation evaluated the joint for sustained, occasional, and thermal loading conditions in accordance with ANSI B31.1-1977 which is the code of record for this piping system. Bounding analyses considering circumferential defect lengths of 1 inch (using normal allowable stresses) and 2 inch (using faulted allowable stresses) were performed. The calculation demonstrates that the joint is within code allowable stress limits when considering these maximum defect lengths. These analyses conservatively bound the characteristics of the identified defect diameter that was less than 1/16 inch and provides adequate assurance of the structural stability of the as found configuration.

Based on this, the as-found configuration of the inlet stub connection is therefore deemed structurally adequate.

**SUMMARY OF VERMONT YANKEE COMMITMENTS**

BVY NO.: 00-69

The following table identifies commitments made in this document by Vermont Yankee. Any other actions discussed in the submittal represent intended or planned actions by Vermont Yankee. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager of any questions regarding this document or any associated commitments.

<b>COMMITMENT</b>	<b><u>COMMITTED DATE OR "OUTAGE"</u></b>
None	N/A