January 2, 2008

LICENSEE: Entergy Nuclear Operations, Inc.

FACILITY: Vermont Yankee Nuclear Power Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON OCTOBER 23, 2007, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY NUCLEAR OPERATIONS, INC., CONCERNING AUDIT QUESTIONS PERTAINING TO THE VERMONT YANKEE NUCLEAR POWER STATION LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Entergy Nuclear Operations, Inc., (Entergy) held a telephone conference call on October 23, 2007, to discuss and clarify the staff's audit questions concerning the Vermont Yankee Nuclear Power Station (VYNPS) license renewal application asked during the October 9-10, 2007, audit of the VYNPS time-limited aging analyses. While attempting to address the staff's audit questions, Entergy determined that further clarification was needed on some of the questions. The telephone conference call was useful in clarifying the intent of the staff's audit questions.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the audit questions discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

Jonathan G. Rowley, Project Manager **/RA/**
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:
As stated

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TELEPHONE CONFERENCE CALL
VERMONT YANKEE NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
OCTOBER 23, 2007

PARTICIPANTS	AFFILIATIONS
Jonathan Rowley	U.S. Nuclear Regulatory Commission (NRC)
Kenneth Chang	NRC
Rajender Auluck	NRC
Robert Hsu	NRC
Peter Wen	NRC
On Yee	NRC
Michael Metell	Entergy Nuclear Operations, Inc. (Entergy)
David Mannai	Entergy
James Fitzpatrick	Entergy
Alan Cox	Entergy
Scott Goodwin	Entergy
David Lach	Entergy
Gary Young	Entergy

ENCLOSURE 1

REQUESTS FOR ADDITIONAL INFORMATION (RAI)
VERMONT YANKEE NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION

OCTOBER 23, 2007

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Entergy Nuclear Operations, Inc., held a telephone conference call on October 23, 2007, to discuss and clarify the following audit questions concerning the Vermont Yankee Nuclear Power Station (VYNPS) license renewal application (LRA). The audit questions had been first discussed during a telephone conference call on October 16, 2007. Additional discussion and clarification was required after Entergy had several days to ponder each question.

1st Audit question

The ASME Code defines that stress intensity from two temperature transients is calculated from the stress components from the two conditions. Please explain how it could be calculated from stress intensities of the two conditions derived from Green's functions, especially at locations of geometric discontinuity. Also, please justify the validity of combining the thermal transient stress intensities with the stress intensities from the external loads and pressure loading.

Discussion: The applicant indicated that the question is clear.

2nd Audit question

Provide justification for statement on page 5 of 34 of Calculation No. VY-16Q-302 that, "The Green's function methodology provides identical results compared to running the input transient through the finite element model."

Discussion: The applicant indicated that the question is clear.

3rd Audit question

For the blend radius for the feedwater nozzle in Calculation No. VY-16Q-302, Table 4, Page 16, why are the Total and M+B stresses for thermal transient 3, shown in columns 3 and 4, high at 0 seconds (t = 0)? This question also applies to transient 4 at t = 1801.9 seconds, transient 9 at t = 2524 seconds, and transient 21-23 at t = 20144 seconds.

Discussion: The applicant indicated that the question is clear.

4th Audit question

Explain why there are differences in the calculated cumulative usage factor (CUF) values between Rev. A and Rev. 0 of the Structural Integrity calculations. Also, why are the CUFs calculated by Structural Integrity different from the CUFs shown in Tables 4.3.1 and 4.3.3 of the Vermont Yankee license renewal application?

Discussion: The applicant indicated that the question is clear.

5th Audit question

Page 1-1 of Report VY-16Q-401 indicates that refined transient definitions for 60 years of operation are used in the computation of the CUF incorporating environmentally assisted fatigue effects. Please explain the refinements in the transient definitions.

Discussion: The applicant indicated that the question is clear.

6th Audit question

For the feedwater nozzles, there are large differences between the CUFs without the environmental fatigue life correction (Fen) factors shown in Table 4.3.1 of the Vermont Yankee license renewal application and those shown in Calculation No. VY-16Q-302. Section 2.0 of the calculation on page 4 of 32 states, "... several of the conservatisms originally used in the original feedwater evaluation (such as grouping of transients) are removed... ." Please explain what conservatisms were removed.

Discussion: The applicant indicated that the question is clear.

7th Audit question

For stainless steel components listed in Table 3-10 of the Structural Integrity Report SIR-07-132 (VY-16Q-404), please justify that the calculated Fen values are conservative.

Discussion: The staff removed the question. The staff determined that this question did not need to be asked.

Memo to Entergy Nuclear Operations, Inc., from J. Rowley dated January 2, 2008

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