



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

March 21, 2011

Mr. Michael Colomb
Site Vice President
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
185 Old Ferry Road
P.O. Box 500
Brattleboro, VT 05302-0500

**SUBJECT: SUPPLEMENTAL SAFETY EVALUATION REPORT RELATED TO THE
LICENSE RENEWAL OF VERMONT YANKEE NUCLEAR POWER STATION
(TAC NO. MC9668)**

Dear Mr. Colomb:

By letter dated January 25, 2006, Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Entergy) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants" to renew the operating license DPR-28 for the Vermont Yankee Nuclear Power Station (VYNPS) for review by the U.S. Nuclear Regulatory Commission (NRC or the staff).

The NRC staff (the staff) issued a safety evaluation report (SER) in two volumes, dated May 2008, which summarizes the results of its safety review of the renewal application for compliance with the requirements of 10 CFR Part 54. The NRC staff published Supplement 1 to the SER in October 2009 which documented the safety review results of confirmatory environmentally adjusted fatigue cumulative usage factors analyses for the reactor core spray nozzle and the reactor pressure vessel recirculation outlet nozzle at VYNPS. These analyses were provided in response to the staff's proposed license condition that would require Entergy to perform these fatigue analyses no later than two years prior to entering the period of extended operation.

The enclosed supplemental SER (Supplement 2) documents the staff's review of additional information provided by Entergy in annual updates and license renewal application amendments since the issuance of Supplement 1 to the SER.

M. Colomb

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If you have any questions regarding this matter, please contact the license renewal project manager, Robert Kuntz, at 301-415-3733 or by e-mail at robert.kuntz@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "B. E. Holian". The signature is fluid and cursive, with the first name "B." and last name "Holian" clearly distinguishable.

Brian E. Holian, Director
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:
Supplemental Safety Evaluation Report

cc w/encl: Listserv

M. Colomb

- 2 -

If you have any questions regarding this matter, please contact the license renewal project manager, Robert Kuntz, at 301-415-3733 or by at e-mail robert.kuntz@nrc.gov.

Sincerely,

/RA/

Brian E. Holian, Director
Division of License Renewal
Office of Nuclear Reactor Regulation

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Enclosure:
Supplemental Safety Evaluation Report

cc w/encl: Listserv

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Letter to Michael Colomb from Brian E. Holian dated March 21, 2011

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(TAC NO. MC9668)

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