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Michael J. Colomb
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BVY 11-001

January 21, 2011

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

SUBJECT: License Renewal Application Supplemental Information
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

REFERENCES:
1. Letter, Entergy to USNRC, "Vermont Yankee Nuclear Power Station, License No. DPR-28, License Renewal Application," BVY 06-09, dated January 25, 2006

Dear Sir or Madam:

On January 25, 2006, Entergy Nuclear Operations, Inc. and Entergy Nuclear Vermont Yankee, LLC (Entergy) submitted the License Renewal Application (LRA) for the Vermont Yankee Nuclear Power Station (VYNPS) as indicated by Reference 1.

Attachment 1 of this letter provides supplemental information to the LRA to provide clarifying information on the selection of sample size for the One-Time Inspection and Selective Leaching programs.

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

Should you have any questions or require additional information concerning this submittal, please contact Mr. Robert Wanczyk at 802-451-3166.

I declare under penalty of perjury, that the foregoing is true and correct. Executed on January 21, 2011.

Sincerely,

[MJC/PLC]

2011 JAN 24 A 10: 14
STATE OF VERMONT
DEPT OF PUBLIC SERVICE
MONTPELIER, VT.
05620-2601

Attachments: 1. License Renewal Application Supplemental Information

cc: Mr. Eric J. Leeds, Director
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Ms. Elizabeth Miller, Commissioner
VT Department of Public Service
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Montpelier, Vermont 05620-2601

Attachment 1

Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)

License Renewal Application

Supplemental Information

Vermont Yankee Nuclear Power Station
License Renewal Application - Supplemental Information

Vermont Yankee Nuclear Power Station (VYNPS) provides the following supplemental information as a result of recent regulatory and industry correspondence potentially relevant to aging management. The information covers the following areas:

1. One-Time Inspection Program
2. Selective Leaching Program

One-Time Inspection Program

License Renewal Application (LRA) Section B.1.21, One-Time Inspection, describes the determination of the sample size based on an assessment of materials of fabrication, environment, plausible aging effects, and operating experience and identification of the inspection locations in the system or component based on the aging effect. VYNPS is providing additional specific information regarding the sample of components that will be inspected.

Representative samples are chosen from each population. Each group of components with the same material-environment combination is considered a separate population. The sample size is based on Chapter 4 of EPRI Report TR-107514, "Age Related Degradation Inspection Method and Demonstration," which outlines a method to determine the number of inspections required for 90% confidence that 90% of the population does not experience degradation (90/90). Inspection locations are determined based on susceptibility, accessibility, dose considerations and operating experience. Where practical, inspections focus on the bounding or lead components most susceptible to aging due to time in service, and severity of operating conditions.

For small populations (100 or less), the EPRI TR-107514 criterion will be modified such that the sample is at least 20% of the population with no less than 2 inspections. This method provides a reasonable sample number for all populations.

With representative sampling focused on susceptible locations, the One-Time Inspection Program provides reasonable assurance that applicable components will continue to perform their intended function through the PEO.

Selective Leaching Program

LRA Section B.1.25, Selective Leaching, includes a one-time visual inspection and hardness measurement of selected components that may be susceptible to selective leaching. VYNPS is providing additional specific information regarding the sample of components that will be inspected.

Representative samples are chosen from each population. Each group of components with the same material-environment combination is considered a separate population. The sample size is based on Chapter 4 of EPRI Report TR-107514, "Age Related Degradation Inspection Method and Demonstration," which outlines a method to determine the number of inspections required for 90% confidence that 90% of the population does not experience degradation (90/90). Inspection locations are determined based on susceptibility, accessibility, dose considerations and operating experience. Where practical, inspections focus on the bounding or lead components most susceptible to aging due to time in service, and severity of operating conditions.

For small populations (100 or less), the EPRI TR-107514 criterion will be modified such that the sample is at least 20% of the population with no less than 2 inspections. This method provides a reasonable sample number for all populations.

With representative sampling focused on susceptible locations, the Selective Leaching Program provides reasonable assurance that applicable components will continue to perform their intended function through the PEO.

LRA Section B.1.25 is revised as shown below to allow component hardness verification using mechanical inspection techniques, specifically destructive testing (when the opportunity arises), chipping, or scraping, in lieu of hardness measurement. Hardness measurement of all components in the sample population may not be feasible due to component location and configuration. New text is shown underlined. Deleted text is shown as strikethrough.

Program Description

The Selective Leaching Program at VYNPS will be comparable to the program described in NUREG-1801, Section XI.M33 Selective Leaching of Materials.

The Selective Leaching Program will ensure the integrity of components made of cast iron, bronze, brass, and other alloys exposed to raw water, treated water, or groundwater that may lead to selective leaching. The program includes ~~a one-time visual inspection and hardness measurement~~ assessment of selected components that may be susceptible to selective leaching to determine whether loss of material due to selective leaching is occurring, and whether the process will affect the ability of the components to perform their intended functions for the period of extended operation. For each component sampled, the assessment entails one-time visual inspection and hardness measurement or verification using mechanical inspection techniques, specifically destructive testing (when the opportunity arises), chipping, or scraping.

The program will be initiated prior to the period of extended operation.