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Michael J Colomb
Site Vice President

May 5, 2009

BVY 09-029

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

SUBJECT: Technical Specifications Proposed Change No. 283
Change to Requirements for Performing the 10CFR50, Appendix J, Type A Test
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

Dear Sir or Madam:

Pursuant to 10CFR50.90, Entergy Nuclear Operations, Inc. (ENO) is proposing to amend Operating License DPR-28 for the Vermont Yankee Nuclear Power Station (VY). The proposed change would revise the Operating License Technical Specifications (TS) Section 6.7.C to change the portion of the specification that defines requirements related to the schedule for performing the 10CFR50, Appendix J, Type A test. Specifically, the proposed change would change the TS from requiring the test "no later than April 2010" to "prior to startup from the April 2010 refuel outage."

ENO has reviewed the proposed amendment in accordance with 10CFR50.92 and concludes it does not involve a significant hazards consideration. In accordance with 10CFR50.91, a copy of this application, with attachments, was provided to the State of Vermont, Department of Public Service.

Attachment 1 to this letter provides an evaluation of the proposed change. Attachment 2 contains a markup of the current TS page. Attachment 3 contains the retyped TS page.

To support our April 2010 refueling outage schedule, ENO requests approval of the proposed amendment by February 1, 2010 with a 60 day implementation period.

There are no new regulatory commitments made in this letter.

A017
NRR

If you have any questions on this transmittal, please contact Mr. David Mannai at (802) 451-3304.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 5, 2009.

Sincerely,

MJC/JMD

Attachment 1: Evaluation of the Proposed Change
Attachment 2: Markup of the Current Technical Specifications Page
Attachment 3: Retyped Technical Specification Page

cc: Mr. Samuel J. Collins
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Attachment 1

Vermont Yankee Nuclear Power Station

Proposed Change 283

Evaluation of the Proposed Change

EVALUATION OF THE PROPOSED CHANGE

1. Description of Change

Entergy Nuclear Operations, Inc. (ENO) is requesting to amend Operating License DPR-28 for Vermont Yankee Nuclear Power Station (VY). The proposed change would revise the Operating License Technical Specifications (TS) Section 6.7.C to change the portion of the specification that defines requirements related to the schedule for performing the 10CFR50, Appendix J, Type A test. Specifically, the proposed change would change the TS from performing the next Type A test "no later than April 2010" to "prior to startup from the April 2010 refuel outage."

2. Proposed Change

The following change is proposed to the current TS Section 6.7.C:

Current TS 6.7.C • The first Type A test after the April 1995 Type A test shall be performed no later than April 2010. (This is an exception to Section 9.2.3 of NEI 94-01, Rev. 0, "Industry Guidelines for Implementing Performance-Based Option of 10CFR50, Appendix J.")
Proposed TS 6.7.C • The first Type A test after the April 1995 Type A test shall be performed prior to startup from the April 2010 refuel outage. (This is an exception to Section 9.2.3 of NEI 94-01, Rev. 0, "Industry Guidelines for Implementing Performance-Based Option of 10CFR50, Appendix J.")

All other provisions contained in TS 6.7.C remain unchanged.

3. Background

In License Amendment 227 (Reference (a)), the NRC approved a change to the VY TS that extended the Type A test interval from 10 years to 15 years on a one-time basis. Subsequent Type A tests would be preformed on a schedule consistent with 10CFR50 Appendix J. The resulting TS required the next Type A test to be performed no later than April 2010. The last Type A test was performed in April 1995.

VY's next refuel outage (RFO) is scheduled to begin in April 2010, however, the Type A test, which is performed just prior to start-up, is currently scheduled to be performed during May 2010. This proposed change will require the Type A test to be performed prior to startup following the April 2010 RFO. This is considered an administrative change since it does not affect the risk impact assessment that formed the basis for allowing the frequency to be extended from 10 years to 15 years

4. Technical Analysis

10CFR50, Appendix J, Option B, requires that a Type A test be conducted at a periodic interval based on historical performance of the overall containment system. VY TS 6.7.C requires that leakage rate testing be performed as required by 10CFR50, Appendix J, Option B, as modified by approved exemptions and in accordance with guidelines contained in Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program." The RG endorses, with certain exceptions, Nuclear Energy Institute (NEI) report NEI 94-01 "Industry Guidelines for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J."

The Type A Test is an overall integrated leakage rate test of the containment structure. NEI 94-01 allows an extended interval of 10 years, based upon two consecutive successive tests. The two most recent Type A tests at VY have been successful, so the normal interval would be 10 years.

In Reference (b), ENO submitted a proposed change to request a one-time extension of the frequency for performing the Type A test to 15 years. This submittal was supplemented by Reference (c) to address requests for additional information. NRC approved the proposed change and issued Amendment 227 to the VY Operating License (Reference (a)).

Because the last Type A test was conducted in April 1995, VY TS 6.7.C requires that the next Type A test be completed no later than April 2010 (i.e., no more than 15 years from the last test). This is an issue because, although the plant will be shutdown in April 2010, the actual performance of the test will not occur until just prior to startup from the refuel outage. To address this ENO proposes to change TS 6.7.C to require the Type A test to be performed prior to start-up from the April 2010 refuel outage. This is considered an administrative change since it does not affect the risk impact assessment that formed the basis for allowing the frequency to be extended to 15 years.

VY is scheduled to start a refuel outage on April 24, 2010. VY TS 3.7.A.2 requires, in part, that primary containment integrity be maintained at all times when the reactor is critical or when the reactor water temperature is above 212 degrees F and fuel is in the reactor vessel. Plant shutdown is controlled by procedure OP 0105 "Reactor Operations." The process normally takes less than 24 hours to bring the reactor to a subcritical condition where reactor water temperature is less than 212 degrees F and primary containment is no longer required.

The primary justification for the requested one-time extension to 15 years was a risk impact assessment of extending the Type A test interval, from 10 to 15 years, that was provided in Reference (b). The risk impact assessment was based on the guidelines of NEI 94-01, Electric Power Research Institute (EPRI) report TR-104285, "Risk Assessment of Revised Containment Leak Rate Testing Intervals" and NRC Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis."

The risk impact assessment determined that the additional risk associated with changing the Type A test frequency from 10 years to 15 years was acceptably low. A full 15 years was used for the time frame that containment integrity was assumed subject to the credible events (fault exposure period). Credit was not taken for periods of time when containment integrity was not required (e.g., outage periods). This provides for a conservative assumption relative to fault exposure time that bounds the proposed change.

VY will shut down the plant in late April 2010 and put the plant in a condition that will not require primary containment integrity prior to the end of April 2010. Primary containment integrity will not be reestablished until successful completion of the Type A test. Therefore, the proposed rewording of TS 6.7.C does not impact the assumptions made in the risk impact assessment which formed the basis for the existing TS.

This is consistent with NEI 94-01, Section 9.2.2 that states "if the test interval ends while primary containment integrity is either not required or is required solely for shutdown activities, the test interval may be extended indefinitely. However a successful Type A test shall be completed prior to entering the operating mode requiring primary containment integrity." This position was restated in NRC Regulatory Issue Summary 2008-27 "Staff Position on Extension of the Containment Type A Test Interval Beyond 15 Years Under Option B of Appendix J to 10CFR Part 50."

Based on the above, ENO considers this an administrative change that is consistent with regulatory guidance and the safety basis for the existing TS.

5. Regulatory Safety Analysis

No Significant Hazards Consideration

Entergy Nuclear Operations, Inc. (ENO) is proposing to modify the Vermont Yankee Nuclear Power Station Operating License Technical Specifications requirements to change the portion of the specification that define requirements related to the schedule for performing the 10CFR50, Appendix J, Type A Test. Specifically, the proposed change would change the TS from performing the Test "no later than April 2010" to "prior to startup from the April 2010 Refueling Outage."

ENO has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10CFR50.92, "Issuance of amendment," as discussed below:

1.0 Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No. The change does not impact the function of any structure, system or component that affects the probability of an accident or that supports mitigation or consequences of an accident previously evaluated. The proposed change involves testing of Primary Containment but does not impact containment design or performance requirements. The proposed change ensures that the Type A test is performed prior to establishing Primary Containment following the April 2010 Refuel Outage. The proposed change does not affect reactor operations or accident analysis and there is no change to the radiological consequences of a

previously analyzed accident. The operability requirements for accident mitigation systems remain consistent with the licensing and design basis. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2.0 Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No. The proposed change does not involve any physical alteration of plant equipment and does not change the method by which any safety-related system performs its function. The proposed change involves the scheduling of the Type A test and does not alter the way the test is performed. Type A tests have been previously performed and are well within the design capability of station structures, systems or components. No new or different types of equipment will be permanently installed or operated. Operation of existing installed equipment is unchanged. The methods governing plant operation and testing remain consistent with current safety analysis assumptions. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3.0 Does the proposed change involve a significant reduction in a margin of safety?

Response: No. These changes do not change any existing design or operational requirements and do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. The proposed change affects the schedule for performing the Type A test and does not affect the way the test is performed or margins for the existing Primary Containment. As such, there are no changes being made to safety analysis assumptions, safety limits or safety system settings that would adversely affect plant safety as a result of the proposed change. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, ENO concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10CFR50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5. Environmental Consideration

A review has determined that the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

6. Precedents

None

7. References

a. Letter, USNRC to Entergy Nuclear Operations, Inc., "Vermont Yankee Nuclear Power Station – Issuance of Amendment Re: One-Time Extension of Integrated Leak Rate Test Interval (TAC No. MC4662), NVY 05-108, dated August 31, 2005

b. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Technical Specification Proposed Change No. 268, One-time Integrated Leak Rate Test (ILRT) Interval Extension," BVY 04-77, dated October 5, 2004

c. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Response to Request for Additional Information - Technical Specification Proposed Change No. 268, One-time Integrated Leak Rate Test (ILRT) Interval Extension," BVY 05-40, dated April 22, 2005

Attachment 2

Vermont Yankee Nuclear Power Station

Proposed Change 283

Markup of the Current Technical Specifications Page

Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

C. PRIMARY CONTAINMENT LEAKAGE RATE TESTING PROGRAM

A program shall be established to implement the leakage rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, entitled "Performance Based Containment Leak-Test Program," dated September 1995, as modified by the following:

- The first Type A test after the April 1995 Type A test shall be performed ~~no later than~~ prior to startup from the refuel outage April 2010. (This is an exception to Section 9.2.3 of NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10CFR50, Appendix J.")

- The leakage contributions from the main steam pathways are excluded from the sum of the leakage rates from Type B and C tests specified in (1) Section III.B of 10CFR50, Appendix J - Option B; (2) Section 6.4.4 of ANSI/ANS 56.8-1994; and (3) Section 10.2 of NEI 94-01, Rev. 0.

- The leakage contributions from the main steam pathways are excluded from the overall integrated leakage rate from Type A tests specified in (1) Section III.A of 10CFR50, Appendix J - Option B; (2) Section 3.2 of ANSI/ANS 56.8-1994; and (3) Sections 8.0 and 9.0 of NEI 94-01, Rev. 0.

The peak calculated containment internal pressure for the design basis loss of coolant accident, Pa, is 44 psig.

The maximum allowable primary containment leakage rate, La, at Pa, shall be 0.8% of primary containment air weight per day.

Leakage rate acceptance criteria are:

1. Primary containment leakage rate acceptance criterion ≤ 1.0 La.

2. The as-left primary containment integrated leakage rate test (Type A test) acceptance criterion is ≤ 0.75 La.

3. The combined local leakage rate test acceptance criterion for Type B and Type C tests (excluding the leakage contributions from the main steam pathways) is ≤ 0.6 La, calculated on a maximum pathway basis, prior to entering a mode of operation where primary containment integrity is required.

4. The combined local leakage rate test acceptance criterion for Type B and Type C tests (excluding the leakage contributions from the main steam pathways) is ≤ 0.6 La, calculated on a minimum pathway basis, at all times when primary containment integrity is required.

Attachment 3

Vermont Yankee Nuclear Power Station

Proposed Change 283

Retyped Technical Specification Page

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