

May 31, 2002

Mr. Michael A. Balduzzi
Senior Vice President and Chief Nuclear Officer
Vermont Yankee Nuclear Power Corporation
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SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - RELIEF REQUEST
RR-V20, REVISION 0, CORRECTION LETTER RELATED TO THE INSERVICE
TESTING PROGRAM (TAC NO. MB5013)

Dear Mr. Balduzzi:

By letter dated November 20, 2001, Vermont Yankee Nuclear Power Corporation (VY), the licensee for Vermont Yankee Nuclear Power Station (Vermont Yankee) submitted Relief Request RR-V20, Revision 0, proposing an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI. VY had requested relief for selected manual valves from the test requirements of OM-10, 1988 Edition, with 1989 Addenda. By letter dated May 6, 2002, VY noted that the applicable code for the IST program was ASME OM-10, 1987 Edition, 1988 Addenda, not the 1988 Edition, 1989 Addenda, as stated in the November 20, 2001, letter. The Nuclear Regulatory Commission (NRC) staff agrees that ASME OM-10, 1987 Edition with 1988 Addenda is the appropriate code per Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a.

This correction does not affect the conclusion on the staff's safety evaluation dated April 23, 2002. Based on the information provided in Relief Request RR-V20, Revision 0, the NRC had concluded that VY's proposed alternative will provide an acceptable level of quality and safety. The NRC staff finds the licensee's request to be acceptable and, therefore, also authorizes the proposed alternative pursuant to 10 CFR 50.55a(a)(3)(i) for the third 10-year inservice inspection interval. The staff's revised safety evaluation pages are contained in the enclosure. If you have any questions, please call Robert Pulsifer, Project Manager, at (301) 415-3016.

Sincerely,

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure: Corrected Safety Evaluation Pages

cc w/encls: See next page

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Vermont Yankee Nuclear Power Station

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FOR VALVE RELIEF REQUEST RR-V20, REVISION 0,

RELATED TO THE INSERVICE TESTING PROGRAM

VERMONT YANKEE NUCLEAR POWER STATION

VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NO. 50-271

1.0 INTRODUCTION

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a, requires that inservice testing (IST) of certain American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME *Boiler and Pressure Vessel Code* (ASME Code) and applicable addenda, except where alternatives have been authorized or relief has been requested by the licensee and granted by the Nuclear Regulatory Commission (NRC) pursuant to paragraphs (a)(3)(i), (a)(3)(ii), or (f)(6)(i) of 10 CFR 50.55a.

In proposing alternatives or requesting relief, a licensee must demonstrate that (1) the proposed alternatives provide an acceptable level of quality and safety, (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety, or (3) conformance is impractical for the facility. Section 50.55a authorizes the NRC to approve alternatives to and grant relief from ASME Code requirements upon making the necessary findings. NRC guidance in Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs," provides acceptable alternatives to the ASME Code requirements. Further guidance is given in GL 89-04, Supplement 1, and NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants."

In a letter dated November 20, 1998 (Ref. 1), Vermont Yankee Nuclear Power Corporation (VY/the licensee) submitted Revision 19 to the third 10-year IST program for Vermont Yankee Nuclear Power Station (VYNPS). The third 10-year IST interval for VYNPS began on September 1, 1993, and is scheduled to end on August 31, 2003. VYNPS' IST program was developed in accordance with the 1989 Edition of the ASME Code, which references ASME/ANSI OM standards Part 1, Part 6, and Part 10 (OM-1, OM-6, and OM-10) for IST of safety and relief devices, pumps, and valves, respectively.

In a letter dated November 20, 2001 (Ref. 2), as supplemented on May 6, 2002 (Ref. 4), the licensee submitted Relief Request No. RR-V20, Revision 0. The licensee has requested relief

Enclosure

for selected manual valves from the test requirements of OM-10, 1987 Edition, with 1988 Addenda. The licensee proposes to test these valves on a once-per-cycle basis or during a refueling outage (nominally every 18 months).

2.0 VALVE RELIEF REQUEST NO. RR-V20

The licensee has requested relief for the manual valves listed in Tables 1 and 2 from the test requirements as defined in paragraph 4.2.1.1 of OM-10, 1987 Edition, with 1988 Addenda. OM-10, paragraph 4.2.1.1, "Exercising Test Frequency," requires that active Category A and B valves be tested nominally every 3 months, except as provided by paragraphs 4.2.1.2, 4.2.1.5, and 4.2.1.7 of OM-10. (The manual valves and data in Tables 1 and 2 are as provided by the licensee in the relief request.)

2.1 Licensee's Basis for Requesting Relief

All the manual valves in the relief request are in service water, alternate cooling water, fuel pool cooling, reactor building closed cooling water, and instrument air systems. These manual valves are listed in Tables 1 and 2.

The licensee states:

OM-1998 Edition, through OMB-2000 Addenda, Subsection ISTC, paragraph ISTC-3540, permits manual valves to be full stroke exercised at least every 5 years, except where adverse conditions may require the valve to be tested more frequently to ensure operational readiness. Any increased testing shall be specified by the owner. The valve shall exhibit the required change of obturator position. VY proposes to use this imminent Code change at an earlier date to provide a significant reduction in valve cycling that otherwise provides no significant increase to the acceptable level of quality and safety.

The overall population (59 total) of manual valves has shown reliability over at least an 18-month frequency. Currently, 29 of the 59 total valve population tests are deferred tests. Of these 29 valves, 20 are deferred to a refueling outage condition, and 9 are deferred to a cold shutdown condition. More frequent cycling of these valves is not practicable. The remaining 30 valves are currently tested at a quarterly frequency. The environment of these valves is the same as those currently tested once per cycle at refueling or cold shutdown conditions. Of these 30 valves, a five-year maintenance history search revealed no mechanical failures. Therefore, a less frequent test schedule should have no more of an impact than those already tested at a once per cycle (RO) frequency. Any increase in risk due to the relaxed frequency of manual valve testing is insignificant. Therefore, the alternative testing at an overall decreased testing frequency, rather than testing quarterly, provides an acceptable level of quality and safety.

operational readiness and is conservative with respect to the modification in the proposed rule. Therefore, the licensee's alternative provides an acceptable level of quality and safety.

3.0 CONCLUSION

The NRC staff concludes that the licensee's proposed alternative to the exercise frequency requirements of paragraph 4.2.1.1 (OM-10, 1987 Edition, including 1988 Addenda) for manual valves is authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the third 10-year inservice inspection interval on the basis that the alternative provides an acceptable level of quality and safety.

4.0 REFERENCES

1. Letter from G. Maret, Vermont Yankee Nuclear Power Corporation, to U.S. Nuclear Regulatory Commission, "Revision 19 of Vermont Yankee Nuclear Power Station IST Program Plan," dated November 20, 1998.
2. Letter from Gautam Sen, Vermont Yankee Nuclear Power Corporation, to U.S. Nuclear Regulatory Commission, "Vermont Yankee Nuclear Power Station, License No. DPR-28 (Docket No. 50-271), Request for Alternative Testing of Manual Valves for Inservice Testing (IST) Program," dated November 20, 2001.
3. Letter from E. G. Adensam, USNRC, to G. Maret, Vermont Yankee Nuclear Power Corporation, "Safety Evaluation of the Inservice Testing Program for Pumps and Valves, Third Interval Plan, Revision 19, Vermont Yankee Nuclear Power Station (TAC No. MA4503)," dated March 12, 1999.
4. Letter from Gautam Sen, Vermont Yankee Nuclear Power Corporation, to U.S. Nuclear Regulatory Commission, "Vermont Yankee Nuclear Power Station, License No. DPR-28 (Docket No. 50-271), Clarification to request for Alternative Testing of Manual Valves," dated May 6, 2002

Principal Contributor: G. Bedi

Date: April 23, 2002