February 14, 1983

Docket No. 50-271

Mr. J. B. Sinclair
Licensing Engineer
Vermont Yankee Nuclear Power
Corporation
1671 Worcester Road
Framingham, MA 01701

Dear Mr. Sinclair:

The Commission has issued the enclosed Amendment No. 74 to Facility Operating License No. DPR-28 for Vermont Yankee Nuclear Power Station. This amendment consists of changes to the Technical Specifications in response to your application dated February 8, 1983.

These changes to the Technical Specifications pertain to the one-time use of a manual valve to accomplish primary containment isolation during a period not to exceed 72 hours, in order to complete necessary maintenance activities.

Copies of the Safety Evaluation and Notice of Issuance are enclosed.

Sincerely,

ORIGINAL SIGNED BY

Vernon L. Rooney, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 74 to DPR-28
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

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cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 74
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Vermont Yankee Nuclear Power Corporation (the licensee) dated February 8, 1983 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-28 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendix A, as revised through Amendment No. 74 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. Within 90 days after the effective date of this amendment, or such later time as the Commission may specify, the Licensee shall satisfy any applicable requirement of P.L. 97-425 related to pursuing an agreement with the Secretary of Energy for the disposal of high-level radioactive waste and spent nuclear fuel.

4. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 14, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 74

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Revise the Technical Specifications as follows:

REMOVE	INSERT
135	135

TABLE 4.7.2.a

PRIMARY CONTAINMENT ISOLATION VALVES
VALVES SUBJECT TO TYPE C LEAKAGE TESTS

Isolation Group (Note 1)	Valve Identification	Number of Power Operated Valves Inboard	Number of Power Operated Valves Outboard	Maximum Operating Time (sec)	Normal Position	Action on Initiating Signal
1	Main Steam Line Isolation (2-80A, D & 2-86A, D)	4	4	5(note 2)	Open	GC
1	Main Steam Line Drain (2-74, 2-77)	1	2	35	Closed	SC
1	Recirculation Loop Sample Line (2-39, 2-40)	1	1	5	Closed	SC
2	RHR Discharge To Radwaste (10-57, 10-66)		2	25	Closed	SG
2	Drywell Floor Drain (20-82, 20-83)		2	20	Open	GC
2	Drywell Equipment Drain (20-94, 20-95)		2	20	Open	GC
3	Drywell Air Purge Inlet (16-19-9)		1	10	Closed	SC
3	Drywell Air Purge Inlet (16-19-8)		1	10	Open	GC
3	Drywell Purge & Vent Outlet (16-19-7A)		1	10	Closed	SC
3	Drywell Purge & Vent Outlet Bypass (16-19-6A)		1	10	Closed	SC
3	Drywell & Suppression Chamber Main Exhaust (16-19-7)		1	10	Closed	SC
3	Suppression Chamber Purge Supply (16-19-10)		1	10	Closed	SC
3	Suppression Chamber Purge & Vent Outlet (16-19-7B)		1	10	Closed	SC
3	Suppression Chamber Purge & Vent Outlet Bypass (16-19-6B)		1	10	Open	GC
3	Exhaust to Standby Gas Treatment System (16-19-6)		1	10	Open	GC
3	Containment Purge Supply (16-19-23)		1	10	Open	GC
3	Containment Purge Makeup (16-20-20, 16-20-22A, 16-20-22B)*		3	NA	Closed	SC
5	Reactor Cleanup System (12-15, 12-18)	1	1	25	Open	GC
5	Reactor Cleanup System (12-68)		1	45	Open	GC
6	HPCI (23-15, 23-16)	1	1	55	Open	GC
6	RCIC (13-15, 13-16)	1	1	20	Open	GC
	Primary/Secondary Vacuum Relief (16-19-11A, 16-19-11B)		2	NA	Closed	SC
	Primary/Secondary Vacuum Relief (16-19-12A, 16-19-12B)		2	NA	Closed	Process
	Control Rod Hydraulic Return Check Valve (3-181)			NA	Open	Process
3	Containment Air Sampling (VG 23, VG 26, 109-76A&B)		4	5	Open	GC

*Note: Valve 16-20-22D may be closed to effect primary containment isolation during repairs to valves 16-20-20 and 16-20-22B. Use of valve 16-20-22D in this manner is restricted to one time for a period not to exceed 72 hours. Use of 16-20-22D in this manner is not allowed after March 5, 1983.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 74 TO FACILITY OPERATING LICENSE NO. DPR-28

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

Introduction

By letter dated February 8, 1983, Vermont Yankee Nuclear Power Corporation (the licensee) proposed changes to the Technical Specifications to add a footnote describing the use of valve 16-20-22D to Table 4.7.2a, which lists primary containment isolation valves subject to Type C leakage tests. The footnote permits valve 16-20-22D to be used as an isolation valve for an interval not to exceed 72 hours during repairs to containment isolation valves 16-20-22 and 16-20-22B.

Evaluation

Valves 16-20-22D, 16-20-22B, and 16-20-20 are arranged in series in the one-inch nitrogen purge makeup line. Valves 16-20-22B and 16-20-20 are identified as containment isolation valves in Technical Specification Table 4.7.2a. Valve 16-20-22D, which is inboard of the other two valves, is a manual globe valve which is provided so that Type C testing of the two outboard valves may be accomplished. Type C testing is accomplished by closing 16-20-22D and admitting test pressure through a test connection between valves 16-20-22D and 16-20-22B. Valve 16-20-22D is not identified in Table 4.7.2a as a containment isolation valve.

On February 3, 1983, valves 16-20-20 and 16-20-22B failed to close. The valves were closed after several actuations of the remote manual switches. Based on past experience with these valves, the licensee believes the failure to be due to a collection of ferrous metal particles collected on the magnet used to provide valve position indication. On February 4, 1983, a Y-strainer with a magnetic insert was installed upstream of the valves to prevent the ferrous metal particles from reaching these valves. Valves 16-20-20 and 16-20-22B are presently closed. We understand that these valves will remain closed, until valve 16-20-22D is closed prior to the repair activity.

The proposed change will allow the manual valve (16-20-22D) to be used as a containment isolation valve for a period not to exceed 72 hours during which V16-20-20 and V16-20-22B can be disassembled, cleaned, reassembled, leak tested in accordance with Appendix J, and returned to service. During the 1983 Refueling Outage, scheduled to begin March 5, 1983, the licensee has committed to replace the solenoid valves (valves 16-20-20 and 16-20-22B) with valves of a different design. The installation of the Y-strainer will improve the operability of the valves during the interim period.

Valve 16-20-22D was satisfactorily tested for leak tightness in accordance with 10 CFR 50 Appendix J on January 9, 1983, in conjunction with the Type C testing of valves 16-20-22B and 16-20-20. Appendix J of 10 CFR 50 states that a Type C test shall be performed by local pressurization. The pressure shall be applied in the same direction as that when the valve would be required to perform its safety function, unless it can be determined that the results from the tests for a pressure applied in a different direction will provide equivalent or more conservative results. Because valve 16-20-22D cannot be pressurized for testing from the direction that pressurization would occur during an accident without pressurizing the entire primary containment, a special test was recently conducted. A valve of the same size, manufacturer, and model was tested several times to observe differences in leak rates in each direction. No discernable difference was observed. The test was witnessed by the NRC Resident Inspector.

Valve 16-20-22D is located in a run of one-inch line which, in the event of leakage, would restrict the flow path more than if the valve were located in a larger line or duct. The valve and line are within the reactor building, therefore any leakage would be released within secondary containment. Gaseous effluent from the reactor building is processed through the standby gas treatment system before release to the environment. The proposed Technical Specifications permit valve 16-20-22D to be used as a containment isolation valve on only a single occassion for an interval not to exceed 72 hours. The restricted duration of its use reduces the likelihood of an accident occurring during this interval.

Summary

In summary, we find the licensees proposed Technical Specifications acceptable based on the following considerations:

1) The leak tightness of valve 16-20-22D has been recently verified during Type C testing and during special testing to confirm that leak testing is not directionally-dependent.

2) Valve 16-20-22D is located in a one-inch line which would restrict flow and, if leakage should occur, would release any leakage within secondary containment so that leakage would be processed by the standby gas treatment system before release to the environment.

3) Restrictions are placed on the time during which valve 16-20-22D may be used as a containment valve.

4) The licensee has committed to replace the two malfunctioning solenoid valves with valves of an improved design within a month.

Environmental Considerations

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR Section 51.5(d)(4) that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 14, 1983

Principal Contributor: V. L. Rooney

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER CORPORATION

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY

OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 74 to Facility Operating License No. DPR-28, issued to Vermont Yankee Nuclear Power Corporation which revised Technical Specifications for operation of the Vermont Yankee Nuclear Power Station (the facility) located near Vernon, Vermont. The amendment is effective as of its date of issuance.

The amendment modifies the Technical Specifications to permit one-time use of a manual valve to accomplish primary containment isolation during a period not to exceed 72 hours, in order to complete necessary maintenance activities.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated February 8, 1982 (2) Amendment No. 74 to License No. DPR-28, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W. Washington, D.C., and at the Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont 05301. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 14th day of February 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing