Franklin Research Center
A Division of The Franklin Institute

January 31, 1980

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Gary Zech
Project Officer

Reference: FRC Project C5257
NRC Contract No. NRC-03-79-118
NRC TAC No. 08816
FRC Task No. 55
Title: Notes of Meeting with Vermont Yankee on January 29, 1980

Dear Mr. Zech:

Attached are the Notes of Meeting taken during the meeting with Vermont Yankee Nuclear Power Corporation on January 29, 1980. They are provided for your information and possible distribution to the Licensee, as you desire.

These notes constitute completion of the FRC's initial review of the Vermont Yankee package.

Very truly yours,

S P Carfagno

S. P. Carfagno
Project Manager

SPC/TDG/mw

Enclosure

cc: Y. S. Huang
A. F. Glagola
V. W. Panciera (cover letter)
W. Rekito, NRC Region I
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NOTES OF MEETING

DATE: January 29, 1980

PLACE: USNRC
Phillips Building
Bethesda, Maryland

ATTENDEES:

USNRC	Vermont Yankee
V. W. Panciera, DOR	W. Murphy, VYC
Y. S. Huang, DOR	D. Reid, VYC
V. Rooney, ORB-3	E. C. Tarnozzer, YAEC
W. Rekito, Region I	R. L. Smith, YAEC
T. J. DelGaizo, FRC	R. Wanczyk, YAEC
J. E. Kaucher, FRC	

PURPOSE: To establish the status of Vermont Yankee Corporation's (VYC) requests for exemption from the requirements of Appendix J to 10CFR50.

AGENDA: Attachment A

DISCUSSION:

1. NRC:I Inspection Report 50-271/76-16 was discussed as follows.

   - Appendix A: VYC will include these penetrations in the Technical Specifications.
   - Appendix B: VYC reported that these valves are being tested and will be included in the Technical Specifications.
   - Appendices C, D, and E: These recommendations, discussed in detail below, regard the definition of the containment isolation valves which require Type C tests (Section II.H of Appendix J to 10CFR50). These valves will be reviewed by VYC and will be addressed in a follow-up letter to be provided as a result of this meeting.

2. NRC:I Inspection Report 50-271/77-18 was discussed. These penetrations will also be reviewed by VYC and addressed in a follow-up letter.

3. The definition of containment isolation valves which require Type C testing was discussed in detail. A summary of this discussion is provided here.

   Containment isolation valves are identified by General Design Criteria (Appendix A to 10CFR50) Nos. 55, 56, and 57. To determine which of these valves require Type C testing, the provisions of Section II.H of Appendix J should be applied considering the possibilities of a single active failure.

The consideration of a single active failure will possibly have the effect of causing a normally open or shut valve to be classified as a valve which will operate intermittently post-accident (per Item 3 of Section II.H).

Once classified as a valve which requires Type C testing, the licensee of an operating reactor may be granted an exemption from testing if it can be demonstrated that the intent of Appendix J can be met. For example, if a line penetrating containment is part of a safety-class water system which is designed to remain intact following a postulated LOCA, the intent of Appendix J is satisfied, providing it can be demonstrated that the isolation valve, or valves, in this line will remain water-filled for 30 days following the accident and, therefore, are effectively water-sealed against containment atmospheric leakage. To demonstrate that the valves will remain water-filled, several options are available:

a. The valves will remain open with the system operating (at a pressure > Pa) throughout the 30-day period considering a possible single active failure.

b. Utilize a hydrostatic test at 110% Pa against each shut isolation valve to demonstrate that sufficient water inventory is available to maintain the 30-day water seal.

b. Utilize a hydrostatic test of the entire system outside containment in lieu of the outside containment valves to demonstrate that the system will remain water-filled for 30 days.

d. Demonstrate that a reliable water supply will be continuously available to a certain line considering the possibility of a single active failure (e.g., lines penetrating below the reactor vessel water level, recirculation sump level, etc.).

If there is no acceptable rationale to demonstrate a water seal (or an air pressure > Pa for 30 days), Type C testing will be required, and a plan for modifying the system to permit testing should be provided.

4. The status of VYC's current exemption requests were briefly discussed in view of the definitions presented in Discussion Point 3, above.

5. At the conclusion of the meeting, it was agreed that VYC would review its containment isolation valve leak testing program and submit revised

requests for exemption or other planned action to conform to the requirements of Appendix J. In this submittal the outstanding items of the two NRC:I Inspection Reports will be addressed. It was agreed that this review would be conducted in about a six-month period with the submittal to be received on about August 1, 1980.

Attachment A

AGENDA FOR MEETING WITH

VERMONT YANKEE NUCLEAR POWER CORPORATION

DATE: January 29, 1980

PLACE: Phillips Building, Bethesda, Maryland

SUBJECT: Containment Leakage Testing

PURPOSE: The purpose of this meeting is to establish the status of VYC's requests for exemption from the requirements of 10CFR50, Appendix J, in view of the 1976 and 1977 inspections by NRC:Region I and correspondence discussed below.

BACKGROUND: On September 9, 1975, VYC responded to an NRC generic letter regarding Vermont Yankee's compliance with the requirements of 10CFR50, Appendix J (Containment Leakage Testing). In the reply VYC requested exemption from the requirements in two areas: main feedwater check valve testing and system operating valves testing.

On August 30, 1976, an inspection of Vermont Yankee was conducted by NRC:I (Report 50-271/76-16) for conformance with Appendix J. This report recommends several changes to the Technical Specifications for Vermont Yankee, including substantial modification to Table I (Containment Piping Penetrations Not Individually Tested), containment isolation valves not tested in strict accordance with Appendix J, and containment isolation valves not local leak rate tested, for which no exemption had been requested. A subsequent inspection (Report 50-271/77-18) conducted on September 13-15, 1977, identified modifications to the Torus Drains containment leakage barriers which are not Type C tested.

AGENDA: The following agenda items are proposed.

Item 1. A discussion of unresolved items of NRC Inspection Report 50-271/76-16, namely:

- Upgrading of Vermont Yankee Technical Specification Table 4.7.1 to incorporate all penetrations and seals subject to Type B testing.
- Upgrading of Vermont Yankee Technical Specification Table 4.7.2.a to incorporate all containment isolation valves subject to Type C testing.
- Modification of Table I, "Containment Piping Penetrations Not Individually Tested," (Attachment to Vermont Yankee letter of September 9, 1975).

- Replacement of Vermont Yankee Technical Specification Table 4.7.2.b with upgraded version of Table I, above.
- Testing of certain containment isolation valves not tested in strict accordance with Appendix J.
- Containment isolation valves not local leak rate tested, for which the licensee has not requested exemption.

Item 3. A discussion of the unresolved item of NRC Inspection Report 50-271/77-18, "Containment Leak Rate Testing of Modifications to Torus Drain Flanges."

Item 3. A discussion of the NRC evaluation of Vermont Yankee exemption request of September 9, 1975.