VERMONT YANKEE
NUCLEAR POWER CORPORATION

Ferry Road, Brattleboro, VT 05301-7002

ENGINEERING OFFICE
580 MAIN STREET
BOLTON, MA 01740
(508) 779-6711

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BVY 92-115

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) NRC Bulletin 92-01, Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free From Fire Damage, dated 6/24/92
(c) Memo, W.H. Rasin (NUMARC) to NUMARC Administrative Points of Contact, NRC Meeting with NUMARC on Thermo-Lag Fire Barrier Issue, dated 7/8/92
(d) Letter, VYNPC to USNRC, BVY 92-092, dated 7/24/92
(e) NRC Bulletin 92-01 Supplement 1, Failure of Thermo-Lag 330 Fire Barrier to Perform its Specified Fire Endurance Function, dated 08/28/92
(f) Letter, P.M. Sears (USNRC) to W.P. Murphy (VYNPC), Response to NRC Bulletin 92-01, Failure of Thermo-Lag Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free From Fire Damage, dated 9/8/92

Subject: **NRC Bulletin 92-01 Supplement 1 Response to Reference (f).**

Dear Sir:

On Friday evening, August 28, 1992, Vermont Yankee received a copy of Reference (e), which expanded the applicability of Thermo-Lag 330 (TL) concerns to include all conduits, trays, walls, ceilings, and equipment enclosures. Reference (e) further required all nuclear facilities utilizing this material to implement immediately upon receipt, the appropriate compensatory measures as if the fire barriers were inoperable, and to provide, within 30 days of receipt, a written notification describing whether Thermo-Lag barriers were installed and what actions would be taken to ensure or restore fire barrier integrity.

Earlier, discussions had been held between Vermont Yankee and NRC staff regarding compensatory actions instituted subsequent to the receipt of Reference (b). Reference f) detailed some of the issues raised during these discussions and requested that Vermont Yankee address these issues in this response. This letter is submitted as our response to NRC Bulletin 92-01 Supplement 1 and the issues raised in Reference (f).

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IMMEDIATE CORRECTIVE ACTIONS:

After evaluation of the information contained in Bulletin 92-01 Supplement 1, two additional 4-inch conduits were added to the scope of Vermont Yankee Thermo Lag applications requiring compensatory measures.

As an interim measure, an hourly fire watch was established for the 4-inch conduits immediately upon receipt of Supplement 1. This fire watch was also temporarily expanded to cover the 3-inch conduit identified in Reference (b) at this time.

Temporary fire detection was installed in the area of the 4-inch conduits. This detection alarms at a local fire panel and in the Control Room.

ANALYSIS:

A more detailed review of this specific Thermo-Lag 330 application at Vermont Yankee has subsequently been performed for the 4-inch conduits. The following are the results of this review:

The two 4" conduits are wrapped with Thermo-Lag 330 in a 3-hour configuration and located in the hallway between the Reactor Building and the Control Building. The conduits house the power cables for the motor control center supplying Division SII safe shutdown loads, such as the RCIC-15 valve emergency feed, "A" Core Spray injection valves, "A" Torus Spray/Torus Cooling valves and the "A" Residual Heat Removal heat exchanger service water outlet valve.

Considered in our evaluation of appropriate compensatory measures were the following:

a) Temporary fire detection was installed in the area of the 4-inch conduits to alert the Control Room in the unlikely event of a fire in the area.

b) No ignition sources are present near the location of the 4-inch conduits.

c) The 4-inch conduits are located in a hallway with frequent personnel traffic and which contains minimal in-situ and transient combustible loading.

During a telecon on August 31, 1992 between VY and NRC, the hourly walkdown of the areas, in concert with the installation of temporary fire detection was determined to be sufficient to ensure that these conduits are adequately protected until permanent resolution to the Thermo-Lag issues are identified.

RESPONSE TO REFERENCE (f):

Vermont Yankee's review of Reference (f) revealed the following items requiring response:

(1) Page 1, Paragraph 3 : Vermont Yankee Technical Specifications are silent with regard to fire barriers.

The Vermont Yankee Technical Specifications state the following in regard to fire barriers:

3.13.E Vital Fire Barrier Penetration Fire Seals

1. Except as specified in Specification 3.13.E.2 below, vital fire barrier penetration seals protecting the Reactor Building, Control Room Building, and Diesel Generator Rooms shall be intact.

2. From and after the date a vital fire barrier penetration fire seal is not intact, a continuous fire watch shall be established on at least one side of the affected penetration within 1 hour.

4.13.E Vital Fire Barrier Penetration Fire Seals

1. Vital fire barrier penetration seals shall be verified to be functional by visual inspection at least once per operating cycle and following any repair.

(2) Page 1, Paragragh 3 : Vermont Yankee should submit a Technical Specification revision which covers fire barriers.

In lieu of a Technical Specification revision, Vermont Yankee will procedurally implement controls on the Appendix R fire barriers such that a continuous fire watch on any degraded fire barriers would be established immediately and remain in place until the condition is resolved or further analysis justifies alternative compensatory measures.

(3) Page 2, Paragraph 1 : Vermont Yankee's planned use of cameras as a compensatory measure.

Upon receipt of Supplement 1 to NRC Bulletin 92-01 Vermont Yankee immediately instituted a 1 hour fire watch on the two 4-inch conduits located in a hallway between the reactor building and the control building. This 1 hour fire watch was also temporarily extended to cover the 3" conduit discussed in Reference (b). Given these changes and recognizing that the NRC was not entirely satisfied with Vermont Yankee's response to the original bulletin, Vermont Yankee requested a telecon with the appropriate NRC personnel to explain our response to Supplement 1. During this telecon, held on August 31, 1992, Vermont Yankee explained that a 1 hour fire watch had been initiated for all (3) conduits which contain safe shutdown wiring and are wrapped with Thermo-lag 330. We also explained that we were in the process of installing temporary fire detection in the area of the 4-inch conduit. This fire detection was installed and operable by September 1, 1992.

During the August 31, 1992 conversation Vermont Yankee further stated that we were evaluating installation of television cameras with the intent that we would justify reducing the fire watch frequency from once per hour to twice per shift. The NRC suggested that VY should coordinate its evaluation, relating to the use of television cameras, with the industry via NUMARC, and develop a consistent industry position on the matter. The NRC indicated that they would prefer to deal with one position rather than many individual, varying, plant positions. Therefore, no consideration is currently being given to the use of television cameras.

SUMMARY:

The Thermo-Lag 330 fire barrier material in question, is utilized to a very limited extent at Vermont Yankee. We believe we have appropriately addressed the issue with the information currently available to the industry. Vermont Yankee is aware of and an active sponsor of the industry program being coordinated by NUMARC to establish a test database, develop guidance for applicability of tests, develop generic installation guidance and consider/coordinate additional testing as appropriate. Vermont Yankee plans to follow these activities and continue efforts to evaluate options for addressing this issue on a longer term basis.

We believe that the actions described above are responsive to your concerns; however, should you have any further questions, please do not hesitate to contact us.

Very truly yours,

Vermont Yankee Nuclear Power Corporation

Warren P. Murphy
Senior Vice President, Operations

cc: USNRC Region I Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS
William H. Rasin, NUMARC

SALLY A. SANDSTRUM
NOTARY PUBLIC
WINDHAM COUNTY, VERMONT
My Term Expires 2/10/95

STATE OF VERMONT)
)ss
WINDHAM COUNTY)

Then personally appeared before me, Warren P. Murphy, who, being duly sworn, did state that he is Senior Vice President, Operations, of Vermont Yankee Nuclear Power Corporation, that he is duly authorized to execute and file the foregoing document in the name and on the behalf of Vermont Yankee Nuclear Power Corporation, and that the statements therein are true to the best of his knowledge and belief.

Sally A. Sandstrum 9/24/92
Sally A. Sandstrum, Notary Public
My Commission expires February 10, 1995