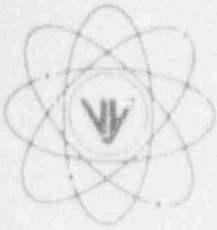


# VERMONT YANKEE NUCLEAR POWER CORPORATION



Ferry Road, Brattleboro VT 05301-7002

REGULATORY  
ENGINEERING OFFICE  
580 MAIN STREET  
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PHONE: 778-6711

March 31, 1992  
BVY 92-041

United States Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

- References:
- a. License No. DPR-28 (Docket No. 50-271)
  - b. Letter, VYNPC to USNRC, WVY 80-49, dated March 17, 1980 (Proposed Change No. 79).
  - c. Letter, VYNPC to USNRC, FVY 83-01, dated January 10, 1983 (Proposed Change No. 103).
  - d. Letter, VYNPC to USNRC, FVY 86-80, dated August 26, 1986 (Proposed Change No. 134).
  - e. Letter, VYNPC to USNRC, BVY 91-120, dated December 23, 1991 (Proposed Change No. 165).
  - f. Letter, USNRC to VYNPC, NVY 92-35, dated March 3, 1992 (Request for Additional Information - Proposed Change No. 165).

Subject: Response to Request for Additional Information Regarding  
Proposed Change No. 165 to Reflect Analog System Replacement

Dear Sir:

By Reference (e), Vermont Yankee requested a change to the Technical Specifications to reflect a change in surveillance requirements resulting from the upgrade of mechanically-actuated instrumentation (differential pressure switches) with an analog trip system. The subject instrumentation provides the Main Steam Line High Flow inputs to the Primary Containment Isolation System logic. The specific change requested was to extend the calibration interval for the High Steam Line Flow Instrumentation from every three months to once per operating cycle.

By Reference (f), NRC transmitted a request for additional information to complete review of Proposed Change No. 165. Attached to this letter, please find Vermont Yankee's responses to the specific questions raised in Reference (f).

Vermont Yankee is aware of the concerns with TR relays as described in regulatory documents and summarized in your letter of Reference (f). We have reviewed these concerns as applicable to relays installed at Vermont Yankee during implementation of the 10CFR50.49 Equipment Qualification Program. The concerns expressed in Reference (f) have not been a concern for relays installed at Vermont Yankee. The operational history of TR relays installed at Vermont Yankee has been excellent.

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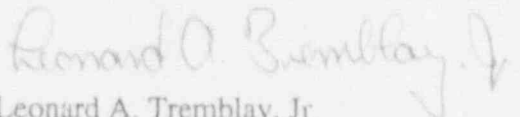
United States Nuclear Regulatory Commission  
March 31, 1992  
Page 2

In addition, the requested change in the frequency of the calibration interval for the High Steam Line Flow instrumentation from once every three months to once per operating cycle does not impact the reliability of the TR relays since the relays are tested during functional tests which are presently performed once per month in accordance with Technical Specifications.

We trust that this information satisfactorily addresses your concerns; however, should you require any further information regarding the subject proposed change to Technical Specifications, please contact this office.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION



Leonard A. Tremblay, Jr.  
Senior Licensing Engineer

Enclosure 1 attached.

cc: USNRC Region I Administrator  
USNRC Resident Inspector - VYNPS  
USNRC Project Manager - VYNPS

Additional Information Pertaining To Trip Relays (TRs)  
Proposed Change No. 165 to Reflect Analog System Replacement

**1. Request**

Identify the systems and numbers of TR relays that are normally energized.

**Response**

The following systems are designated based upon TR relay functions:

(See Note 1 below)

<u>System</u>	<u>No. of Relays</u>
Reactor Protection System (RPS)	38
Control Rod Drive	2
Primary Containment Isolation System (PCIS)	8
Emergency Core Cooling System (ECCS)	<u>8</u>
Total	56

**2. Request**

Identify the TR relay vendor, style and model number.

**Response**

Vendor: AGASTAT (Amerace Corp.)  
Style: EGP Power Relay  
Model: EGPB002/003 (normally energized)

**3. Request**

Identify the years of service life for the normally energized TR relays.

**Response**

Based upon documentation available in our files, the service life for the normally energized TR relays per GE/AGASTAT is 4.5 years. A recent call to AGASTAT did not result in any new information.

**4. Request**

If the service life is known, have the previously installed normally energized TR relays been replaced in a timely manner? Does the licensee have a program for routine relay replacement?

**Response**

All the subject normally energized relays are presently addressed in the NRC-reviewed Vermont Yankee Environment 1 Qualification Program which determined qualification and replacement requirements. Based upon specific VY environments, relay functions and design and operating conditions, this program requires routine review and replacement of relays based upon calculated qualified lives due to aging. A review of recorded service life information has determined that all subject relays required to be environmentally qualified have been installed for less than 3.5 years. In addition, routine surveillance/maintenance performed on the relays should identify any failed relays/contacts. To date operating history of this type of relay has been excellent.

**5. Request**

Describe the method of seismic restraint of the TR relay to its base. Is the restraint used a wire or a strap?

**Response**

Subject TR relays are provided with heavy duty loc'ing straps.

**6. Request**

Are there any TR relays used in circuits where 24 milli-ampere or less is continually conducted through its contacts?

**Response**

The majority of the TR relays provide contacts in trip circuits and are used to energize other relays in those circuits. These contacts have a current continually conducted through them which is greater than 24 milli-ampere. The only circuits which would have 24 milli-ampere or less continually conducted through the TR relay contacts would be those used for non-nuclear safety annunciation or computer input functions.

**Notes:**

1. The TR relays discussed above refer to the relays which are normally energized by analog trip/calibration cards presently installed at Vermont Yankee.