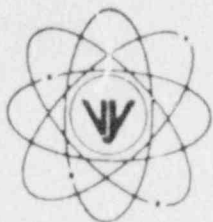


# VERMONT YANKEE NUCLEAR POWER CORPORATION



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

FVY 88-45

REPLY TO:

ENGINEERING OFFICE

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June 2, 1988

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

- References:
- a) License No. DPR-28 (Docket No. 50-271)
  - b) Letter, USNRC to All Holders of Nuclear Power Reactor Operating Licenses (OL's) or Construction Permits (CP's) for Action, NRY 85-250, dated 11/15/85 (IEB 85-03)
  - c) Letter, VYNPC to USNRC, FVY 86-45, dated 5/14/86
  - d) Memorandum, G. Grant (USNRC) to J. Pelletier (VYNPS), NRY 88-046, "Request for Additional Information Concerning Vermont Yankee's Response to IEB 85-03," dated 3/30/88
  - e) Letter, USNRC to All Holders of Operating Licenses or Construction Permits for Boiling Water Reactors (BWR's), NRY 88-070, dated 4/27/88 (NRC Bulletin 85-03, Supplement 1)
  - f) Letter, VYNPC to USNRC, FVY 88-34, dated 5/5/88

Dear Sir:

Subject: Vermont Yankee Response to NRC Bulletin 85-03,  
Supplement 1: Motor-Operated Valve Common Mode  
Failures During Plant Transients Due to Improper  
Switch Settings

In accordance with the request set forth in NRC Bulletin 85-03, Supplement 1 [Reference e)], Vermont Yankee herewith submits a written report, enclosed as Attachment 1 to this letter, providing the subject information requested.

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## ATTACHMENT 1

### Vermont Yankee Response to NRC Bulletin 85-03, Supplement 1: Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings

#### SUMMARY

The purpose of NRC Bulletin 85-03, Supplement 1: "Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings," was to clarify: 1) which valves are to be included, and 2) the meaning of the phrase "...inadvertent equipment operations (such as inadvertent valve closures or openings)..." as used in the Bulletin.

Vermont Yankee included within its May 14, 1986 [Reference c)] response to the original Bulletin, all the motor-operated valves in the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) systems. Accordingly, Vermont Yankee's response to the original Bulletin included all safety-related motor-operated valves in the selected systems and thus no other valves need to be added to address the scope of the supplemental Bulletin. Reference c) also provided Vermont Yankee's commitment to evaluate valve mispositioning at maximum differential pressure for events that are within the Vermont Yankee existing approved design basis. Additionally, in our letter to the NRC, dated May 5, 1988 [Reference f)], we recently provided clarification of our scope and schedule commitments in response to a NRC request [Reference d)].

The following itemized responses to each action item in NRC Bulletin 85-03, Supplement 1, together with our previous [References c) and f)] submittals, are intended to show that Vermont Yankee understands and is fully responsive to the requirements of the Bulletin and the clarifications noted in the supplement.

NRC Bulletin No. 85-03, Supplement 1, Required Actions for  
all BWR Holders of Operating Licenses or Construction Permits:

For safety-related motor-operated valves in the high pressure coolant injection/core spray and reactor core isolation cooling systems not included in the actions planned or completed in response to the original Bulletin, develop and implement a program to ensure that valve operator switches are selected, set, and maintained properly. This should include the following:

- Bulletin Item      (a) Review and document the design basis for the operation of each valve. This documentation should include the maximum differential pressure expected during both opening and closing of the valve for both normal and abnormal events to the extent that the events are included in the existing, approved design basis (i.e., the design basis documented in pertinent licensee submittals such as FSAR analyses and fully approved operating and emergency procedures, etc.). In addition, when determining the maximum differential pressure for valves that can be inadvertently mispositioned, the fact that the valve must be able to recover from such mispositioning should be included.

VY Response

As discussed in the summary section above, all HPCI and RCIC motor-operated valves are included in Vermont Yankee's NRC Bulletin 85-03 program. Table 1 of Reference c) provided the design differential pressure values for all HPCI and RCIC valves.

As stated in our response to Question 2 in Reference f), Vermont Yankee is performing calculations for each valve to document the normal, abnormal, and accident differential pressures that could be applied to the valve. The fact that the valve must be able to recover from inadvertent mispositioning will be considered when determining the maximum differential pressure that could be developed.

Bulletin Item

- (b) Perform Action Item (b) of the original Bulletin for any additional valves identified above.

The intent is to provide assurance that a program exists for selecting and setting valve operator switches to ensure a high reliability of safety system valves. If changing the switch settings is not sufficient to ensure the capability for repositioning a particular mispositioned valve, a justification for continued operation should be provided in the Bulletin response if the licensee does not elect to implement additional actions, such as administrative or procedural controls or equipment modifications, to minimize the likelihood of valve malfunction.

VY Response

Vermont Yankee's response [Reference c)] to the original Bulletin described in the program being developed to fully address the intent of Action Item (b). As clarified in our response to Question No. 4 in Reference f), Vermont Yankee intends to following existing Technical Specifications if, during testing, a valve is determined to be inoperable (i.e., unable to perform its required design function for design basis accidents). If, during testing, it is discovered that the capability for repositioning a particular mispositioned valve cannot be ensured by switch adjustments, either a justification for continued operation will be provided in our final Bulletin submittal or additional actions such as administrative or procedural controls or equipment modifications will be implemented to minimize the likelihood of valve malfunction.

Bulletin Item

- (c) Perform Action Item (c) of the original Bulletin for any additional valves identified above.

VY Response The valve settings and testing required by Action Item (c) will be performed by the testing program being developed as previously discussed in Reference (c) and clarified in Reference f).

Bulletin Item (d) Perform Action Item (d) of the original Bulletin for any additional valves identified above.

VY Response The procedure requirements of Action Item (d) which ensure that correct switch settings are determined and maintained through the life of the plant will be an integral part of Vermont Yankee's NRC Bulletin 85-03 program. As stated previously [Reference c)], Vermont Yankee's response to the original Bulletin included all valves required to be tested within the scope of the original Bulletin and the subject supplemental Bulletin.

Bulletin Item (e) Within 30 days of receipt of this supplement, submit a written report to the NRC that, for any additional valves:  
(1) provides the revised results of Item (a) above; and  
(2) contains a schedule for completion of Items (b) through (d) above.

VY Response This submittal constitutes Vermont Yankee's 30 day written report. In summary, no additional valves were identified from our original submittal in that all HPCI and RCIC system valves were originally included. Therefore:

1. Vermont Yankee's commitment to Item (a) does not need revision; and
2. Vermont Yankee's schedule for completion of Items (b) through (d) as discussed in References (c) and (f) remains unchanged.

Bulletin Item (f) Revise the report requested by the original Bulletin to include any additional valves. This revised report shall be submitted to the NRC within 60 days of completion of the program for the additional valves.

VY Response There are no additional valves identified from our original submittal, in that all HPCI and RCIC system valves were originally included. Therefore, the scope and schedule of the final report requested by the original Bulletin remains unchanged. Our program is scheduled for completion by the end of our 1989 refueling outage and our final report will be submitted within 60 days after startup from our 1989 refueling outage.