VERMONT YANKEE
NUCLEAR POWER CORPORATION

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REPLY TO
ENGINEERING OFFICE
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June 22, 1992
BVY 92-071

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

References: a) License No. DPR-28 (Docket No. 50-271)
b) Letter, USNRC to VYNPC, Inspection Report 92-80, dated 4/20/92

Dear Sir:

Subject: Response to Inspection Report 92-80

This letter is written to respond to the weaknesses identified by an NRC Emergency Operating Procedure (EOP) Inspection Team during the special announced safety inspection conducted from February 24 to February 28, 1992, and documented in Reference b).

We were pleased to learn that the inspection team found the Vermont Yankee EOP program much improved and trending in a positive direction. We anticipate further improvements as a result of implementing corrective actions in response to the identified weaknesses, as well as from further dialogue on the remaining open items.

Information is submitted in the accompanying attachments in response to the identified weaknesses in (1) the technical adequacy of the Vermont Yankee Plant Specific Technical Guidelines (PSTGs), EOPs, and Reactor Pressure Vessel Control guideline and (2) the EOP programmatic controls as noted in Sections 3.1, 3.2, 3.3 and 4.2 and Sections 6.1 and 6.2, respectively, of Reference b).

Also included with our response is our perspective of the root causes of those items. It is our intent to fully resolve all issues related to both the specific weaknesses identified by the NRC inspection as well as those arising from the root cause analysis within an updated Procedure Generation Package (PGP) and revised OEs and other plant operating procedures. Further, we will pursue resolutions of the appropriate items by continued participation in the cognizant industry groups (i.e., BWROG Emergency Procedures Committee, NUMARC Severe Accident Working Group, etc.).

To insure that our resolutions are responsive to the issues identified in Reference b), it is our desire to meet with NRC's inspection team members to review them, to have additional discussion on the remaining open issues, and to clarify your concerns identified in Reference b), sections 4.3, 5.1, 5.2, and 5.3. Further, we wish to confirm our understanding of the unspecified discrepancies requiring resolution, such as those implied by the lead paragraph of Attachment 3 to Reference b).

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Following submittal of this letter, a member of our staff will initiate contact with NRC Region I to arrange for a meeting at a time and date that is mutually acceptable.

We expect to incorporate the updates to the PGP and the EOPs, including correction of deficiencies concerning OE 3100, "Scram Procedure", and the "Torus Temperature Control" guideline, such that they may be used for training beginning in February 1993. Implementation will be completed and revised procedures will be issued following operator training in 1993. The documentation will be maintained at our facility and will be available for inspection. Also as agreed earlier, a sufficient quantity of borax required by OE 3107, Appendix J, has been obtained.

We believe that the actions proposed 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

ROOT CAUSE ANALYSIS
AND
CORRECTIVE ACTION PLAN

SUMMARY OF NRC FINDINGS RELATIVE TO TECHNICAL ADEQUACY:

Discrepancies were identified in the VY PSTGs that detract from the technical adequacy of the VY accident mitigation strategies. Additionally, some problems were noted with the technical adequacy of the EOPs and EOP support procedures, including some minor inconsistencies between the VY PSTGs and EOPs. The technical adequacy of the VY PSTGs, EOPs and EOP support procedures is considered to be unresolved pending licensee review and resolution (Sections 3.1, 3.2, and 3.3).

VY RESPONSE:

Sections 3.1, 3.2, and 3.3 of the inspection report contain a total of 45 comments. Vermont Yankee will resolve 37 of these weaknesses, criticisms, or acceptable alternatives to our current technical justifications by appropriate revision of the PGP, OEs, and support procedures as identified in the attached matrix.

To ensure that our resolutions are responsive to the issues identified in Reference b), it is our desire to meet with NRC's inspection team members to review our intended resolution of the identified issues, to have additional discussion on the remaining open issues, and to clarify your concerns identified in Reference b), Sections 4.3, 5.1, 5.2, and 5.3. Further, we wish to confirm our understanding of the unspecified discrepancies requiring resolution, such as those implied by the lead paragraph of Attachment 3 to Reference b).

ROOT CAUSE:

We have conducted a preliminary review of the identified weaknesses and have determined that there is no single root cause for their occurrence. Some were due to inadequate management oversight and some due to weaknesses in the quality control process. The majority of the issues identified as weaknesses have as their root cause the lack of clearly defined standards regarding what constitutes sufficient justification for deviation from generic emergency procedure guidelines.

We believe the standards have and will continue to evolve with practice and time as both the NRC and industry gain experience with the issues. For example, as noted in the inspection report, Vermont Yankee's EOP program was much improved as a result of response to inspection findings (USNRC Inspection Report No. 50-271/91-02) as well as our own initiatives derived from the guidance provided in NUREG-1358, ("Lessons Learned From the Special Inspection Program for Emergency Operating Procedures").

SUMMARY OR NRC FINDINGS RELATIVE TO PROGRAMMATIC WEAKNESSES:

Weaknesses in the program have resulted in EOP appendices and support procedures that are not of the same high quality (as the flowchart procedures).

The programmatic controls do not appear to be effective for ensuring that tools and materials will be available to support implementation of the EOP support procedures.

These weaknesses in the EOP programmatic controls are considered to be unresolved pending licensee review and resolution (Sections 6.1 and 6.2).

VY RESPONSE:

An OE appendix writers guide will be developed in accordance with the criteria established in NUREG 0899, and incorporated into Vermont Yankee's PGP. In addition, the Verification and Validation programs will be revised to include the appropriate criteria when applied to OE appendices and support procedures, and will address the utilization of multi-disciplined teams during procedure development.

Appropriate surveillance checklists for tools and materials will be developed and controlled via administrative procedures. Scheduled surveillance intervals will be established based on past experience with similar tool and material control processes.

ROOT CAUSE:

The root cause for the programmatic weaknesses which resulted in EOP appendices and support procedures not of the same high quality as the flowchart procedures has been determined to be due to a change in the method for preparation of OE appendices without adequate review of the entire development process. A contributing cause was the erroneous assumption that, as with other procedures, there would be adequate exercise of the OE appendices and support procedures by operators during training and practice to provide additional verification and validation via the procedure change suggestion process. In addition, specific guidance was not provided in the procedure writers guide for development of OE appendices in accordance with Vermont Yankee's PGP.

The root cause for ensuring the availability of tools and materials needed for EOP implementation has been determined to be inadequate administrative controls. In the past, uncontrolled checklists have been utilized for surveillance of materials and tools necessary for implementation of OE appendices. In addition, there was no provision for ensuring that review and timely revision of the checklists were performed when necessitated by EOP or support procedure changes.

NRC SECTION #1: COMPARISON OF BWROG EPGs & VY PSTGS

SECTION	TITLE	COMMENT TYPE						
		TECH	FORMAT	REVISE PSTG	REVISE DIFF-1	REVISE DIFF-2	REVISE OE(s)	OTHER
A.1	Transitions from Other Guidelines		X	X	X	X		
A.2.a	Injection Thru the RHR Heat Exchangers		X	X	X	X		
A.3.a	Override to Repoen MSIVs	X			X			
A.3.b	Initiation of Shutdown Cooling	X		X	X	X		REV OP 0109
A.4.a	Initiation of Alt Rod Insertion & Reset	X		X				
A.4.b	Increasing CRD Differential Pressure	X		X	X		X	NEW EOP APP
B.1.a	RPV Depressurization	X		X	X			
B.2.a	Defeating Isolation Interlocks	X			X			
B.3.a	Termination of Injection at Vacuum Bkr Elev	X		X	X		X	
B.3.b	Termination of Inject for Primary Containment Water Level Limit	X		X	X		X	
B.4.a	Override Statement	X			X			
B.4.b	Air Purge	X		X	X		X	
C.1	Entry Conditicns	X						OPEN ISSUE
C.2	Secondary Containment Vent. Override		X	X	X		X	
C.3.a	Operation of Available RB Ventilation		X	X	X	X		
C.4.a	Floor Drain Sump Water Levels		X	X	X	X		
D.1	Emergency Depressurization	X			X			
E.1.a	Inhibit ADS	X			X			
E.1.b	Spray Cooling	X		X	X		X	
E.1.c	Transition from Spray Cooling to Steam Cooling	X		X				
E.2.a	Termination & Prevention of Injection	X						OPEN ISSUE
E.2.b	Defeating Interlocks	X						NEW EOP APP
E.3.a	RPV Wtr Lvl Below Min Stm Cool Wtr Lvl		X					OPEN ISSUE
E.3.b	Transition to Primary Containment Flooding		X		X			
E.4.a	RPV Venting	X						OPEN ISSUE

NRC SECTION #2 COMPARISON OF VY PSTGS & VY EOPS

SECTION	TITLE	COMMENT TYPE						
		TECH	FORMAT	REVISE PSTG	REVISE DIFF-1	REVISE DIFF-2	REVISE OE(S)	OTHER
A.1	Shutdown Conditions	X						OPEN ISSUE
B.1	Entry Conditions-RPV Water Level Cannot be Determined		X			X		
B.2.a	Override-Transition to Level/Power Control		X			X		
B.2.b	Injection Through The RHR Heat Exchangers	X			X	X		
B.2.c	Use of Alternate Injection Systems	X		X				
B.3.a	Heat Capacity Temperature Limit & SRV Tail Pipe Level Limit		X			X	X	REVISE OE 3100
B.3.b	RPV Depressurization		X					REVISE OP 0109
B.4.a	Defeating RPS Logic Trips	X		X	X			
C.1.a	Suppression Pool Temperature Control	X					X	
C.2.a	Primary Containment Pressure	X		X				
D.1	High Reactor Building Differential Pressure Entry Conditions	X						REVISE ON 3153 & 3158
D.2.a	Floor Drain Sump Water Levels	X						REVISE ARS(s)
E.1.a	Transitions from Other Guidelines		X					OPEN ISSUE
E.2.a	RPV Water Level Above the Minimum Steam Cooling RPV Water Level	X						OPEN ISSUE
E.2.b	Exit from Level Power Control		X			X		

NRC SECTION #3 TECHNICAL ADEQUACY OF EOPS & SUPPORT PROCEDURES

SECTION	TITLE	COMMENT TYPE						
		TECH	FORMAT	REVISE PSTG	REVISE DIFF-1	REVISE DIFF-2	REVISE OE(s)	OTHER
A	Primary Containment Water Level Indication	X						CHANGE DRYWELL HIGH WATER LEVEL ALARM SETPOINT
B	Isolation of Systems Discharging Into Secondary Containment	X						REVISE ON 3153 & 3158
C	Emergency RPV Depressurization with Alternate Systems	X						OPEN ISSUE
D	Control Rod Insertion	X						REVISE OP 0109
E	Throttling Fire Water Injection	X					X	

NOTE: (1) PGP APPENDIX A: PLANT SPECIFIC TECHNICAL GUILDEIN (PSTG)
(2) PGP APPENDIX E: EPG TO PSTG DIFFERENCES (DIFF-1)
(3) PGP APPENDIX F: PSTG TO OE DIFFERENCES (DIFF-2)