VERMONT YANKEE NUCLEAR POWER CORPORATION



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

JEOI

February 4, 1994 BVY 94-15

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

References:

- (a) License No. DPR-28 (Docket No. 50-271)
- (b) Letter, USNRC to VYNPC, Inspection Report No. 50-271/ 93-14, dated 8/27/93
- (c) Letter, VYNPC to USNRC, BVY 93-108, dated 9/27/93
- (d) Letter, USNRC to VYNPC, Inspection Report No. 50-271/ 93-26, dated 12/23/93

Subject: Reply to a Notice of Violation - Inspection Report No. 50-271/93-26

This letter is written in response to Reference (d), which documents that our activities were not conducted in full compliance with NRC requirements. The violation, classified as a Severity Level IV, was identified during a routine inspection conducted from October 10 to November 27, 1993. Our response to this violation is provided below. An extension of two weeks has been granted on this response by Region I.

VIOLATION:

Technical Specification 6.5.A requires that detailed written procedures shall be prepared and adhered to for maintenance operations which could have an effect on the safety of the reactor. 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions or procedures of a type appropriate to the circumstances. Appropriate instructions or procedures are required by Section V of the Yankee Atomic Electric Company Operational Quality Assurance Manual, YOQAP-1-A. Procedure AP 0019, Rev. 6, "Control of Temporary and/or Portable Material," was written pursuant to Technical Specification 6.5.A.1 and requires, in Step B.3, that ladders be securely fastened.

9402100178 940204 PDR ADDCK 05000271 0 PDR . United States Nuclear Regulatory Commission February 4, 1994 Page 2

- (1) Contrary to the above, on November 10, 1993, free-standing scaffolding installed near safety related equipment in the "B" emergency core cooling corner room of the reactor building was not laterally supported and a ladder was not securely fastened, and procedure AP 0019 did not contain instructions to assure that temporary materials do not affect the continued operability of safety-related equipment during a seismic event.
- (2) Also, on or about October 23, the licensee did not prepare maintenance procedures of a type appropriate to the circumstances, as evidenced by the installation of polyethylene plastic over the reactor building crane access hatch without an evaluation of the effects that this potential modification of reactor building ventilation would have on the environmental qualification design assumptions used in high energy line break analysis.

These examples constitute a Severity Level IV violation.

RESPONSE:

1) Reason for the Violation

Vermont Yankee admits the cited violation. Our review of the unsecured ladder in the "B" emergency core cooling corner room determined the cause of this improper installation to be inadequate training on the applicable plant procedure (AP 0019, "Control of Temporary and/or Portable Materials"). Interviews with Maintenance, I&C and Operations personnel reflected a good understanding of the procedural requirements concerning proper use of ladders by Maintenance and I&C. However, it was noted that Operations personnel had a lack of knowledge of the procedural requirements regarding ladders; particularly the requirements for tieing off ladders while unattended. Although it was not possible to positively identify the reason for the improper installation of the ladder (it was not part of the staging erected in the room), it is highly probable that the ladder was erected by Operations personnel who were not knowledgeable in the procedural requirements relative to ladder use.

Our review of the installation of staging, which could potentially have affected operation of safety-related equipment during a seismic event determined the cause to be a lack of adequate guidance in AP 0019 which controls staging installations.

United States Nuclear Regulatory Commission February 4, 1994 Page 3

Immediate Corrective Action Taken

The ladder was immediately removed as d properly stored when it was identified as being unsecured. In addition, AP 2019, "Control of Temporary and/or Portable Materials," was modified on January 21, 1994 to provide additional guidance on acceptable tie-off points for ladders to clarify expectations.

AP 0019 has been modified to require a Mechanical Engineering (or related discipline) review of stagings prior to their installation. In addition, the procedure now requires the Engineer to review the completed installation and sign off a tag indicating his acceptance and the applicable evaluation. This revision to the procedure became effective on 1/21/94. Training was provided to the evaluating engineers, and erectors of staging were notified of their new AP 0019 responsibilities.

Continuing Corrective Actions

Appropriate personnel from the Operations group will be trained on ladder use during February 1994. Plant departments will ensure that appropriate personnel (potential ladder erectors/users) review the requirements of AP 0019 during February. VY will further assess the effectiveness of these actions and implement additional corrective actions as required by May 1994.

The effectiveness of the training and of the procedure revision relative to stagings will be determined through assessments to be completed by May 1994. Further corrective actions will be implemented as required based on the assessment results.

Additional Information

The free-standing scaffolding installed near safety related equipment in the "B" emergency core cooling corner room of the reactor building, although not laterally supported, was determined not to be a seismic concern due to the inherent ruggedness of equipment which would have restrained the staging. Upon notification of a concern regarding this installation, a VY Mechanical Engineer reviewed the installation and found that although the staging did not meet the interim inspection checklist, it would not have affected the operability of safety-related equipment in the corner room during a seismic event. This was further confirmed by a walkdown performed by the erecting group and a VY Project Engineer. However, it is noted that the potential for affecting operation of safety-related equipment without prior evaluation did occur and represents a legitimate concern. Good practice is to laterally restrain staging in the vicinity of any safety-related equipment.

United States Nuclear Regulatory Commission February 4, 1994 Page 4

2) Reason for the Violation

Our review of the polyethylene plastic over the reactor building crane access hatch without an evaluation of the effects, determined the cause to be a weakness in planning of work orders due to procedural inadequacies. The plastic had been installed as a precautionary measure to ensure there was no spread of contamination from the Refuel Floor to lower elevations of the Reactor Building.

Immediate Corrective Action Taken

Upon recognition of the potential problem, the plastic was immediately removed. Subsequent assessments by Engineering determined that the plastic did not create a problem with Environmental Qualification analyses. However, we recognize that work efforts of this nature have the potential to create problems and have reviewed this event with Maintenance and I&C department managers and their personnel and have made them aware of the potential to inadvertently affect design analysis during the conduct of work in the plant. This should minimize the potential for repeated events until the procedure changes are completed.

Continuing Corrective Actions

To prevent repetitions of this particular problem, signs will be hung from the equipment hatch handrails requiring Engineering review prior to blocking off. This will be completed during February 1994.

To address the procedural weakness in job planning, procedures AP 0020, "Control of Temporary Modifications" and AP 0021, "Work Orders" will be revised to more clearly describe considerations that need to be evaluated, including environmental qualification, in planning for jobs. These procedure revisions and the associated training will be completed by March 1994.

The effectiveness of these actions will be assessed by May 1994 and additional corrective actions taken as appropriate.

To provide a defense in depth approach to resolution to this problem, the Environmental Qualification analyses will be reviewed to determine if there are other key assumptions that could inadvertently be negated by normal plant activities. If such situations are found, they will be addressed via signs, United States Nuclear Regulatory Commission February 4, 1994 Page 5

analysis, procedure changes or other methods. In addition, we will assess the feasibility of doing the analysis in a manner that minimizes the likelihood that normal activities would inadvertently negate assumptions in the analysis.

We trust that the information provided is responsive to your concerns; however, should you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

VT YANKEE NUCLEAR POWER CORP.

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James P. Pelletier Vice President, Engineering

JPP/gmv

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