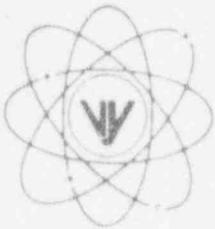


VERMONT YANKEE NUCLEAR POWER CORPORATION



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REPLY TO:
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January 14, 1994
BVY 94-05

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

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) VYNPC to USNRC, VY Response to OSTI Inspection, BVY 93/126, dated 11/12/93
(c) VYNPC to USNRC, T/S Surveillance Self-Evaluation Status, BVY 93/148, dated 12/30/93

Subject: Recent Program Improvement at Vermont Yankee

The purpose of this letter is to provide a summary of recent initiatives at Vermont Yankee. Many of these programs were initiated or modified to provide effective long-term improvements as a result of weaknesses identified in NRC Inspections, the previous SALP assessment and our self-assessment efforts/programs.

We recognize that past problems in the area of fire barriers, control rod scram time testing and refueling activities are the type of problems that should have been prevented. Vermont Yankee has embarked on many programs designed to improve our training effectiveness, procedure content and quality, and our self-assessment capability by instilling a more aggressive questioning attitude into our staff relative to problem self-identification and prevention.

A healthy self-assessment program is a key improvement element and we are now assessing this area in our routine Quality Assurance audits. Vermont Yankee management emphasis on self-assessment is evident in management meetings with the President and CEO, routine meetings with senior plant management and increased Nuclear Safety and Audit Review Committee involvement in the audit process.

We have also initiated comprehensive reviews of our corrective action and our planning/scheduling processes. These reviews will be completed through our Commitment to Excellence (CEP) process in early 1994. The CEP process utilizes a multi-disciplined task team approach and has successfully been utilized to accomplish broad-based program improvements in the past. These reviews will focus on assuring consistent implementation and long term effectiveness of these processes.

Recently we have developed and promulgated two new company policies. The first policy provides an overview of the importance of self-assessment in the conduct of our activities and provides the framework for departmental self-assessment programs. This policy has been in effect since June 1993, and departments are well along in the development of effective programs to implement the policy. The

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other more recent policy was issued in January 1994, and concerns requirements for the use of procedures. A renewed emphasis in the area of procedure content and compliance was recognized as an area for increased attention; consistent application of the principles outlined in this policy are designed to bring about that improvement.

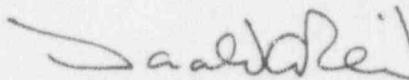
Vermont Yankee action to assess and adjust our standards of performance in these areas was clearly warranted and indications in the last half of 1993 demonstrate that the actions we have taken are having a dramatic effect in improving our performance. We are confident that as our dedicated and knowledgeable personnel gain additional experience with these new programs and initiatives, our entire organization will become even more rigorous and aggressive in identifying and preventing problems before they occur.

We are also confident that the foundation for continuous enhancement is in place and that we have and will continue to see improvements in our overall operation. Attachment "A" is provided as a summary of some of our improvement initiatives that we believe effectively address past problems and, more importantly, provide a basis for comprehensive future improvements.

We will keep you informed of our efforts.

Sincerely,

Vermont Yankee Nuclear Power Corporation



Donald A. Reid
Vice President, Operations

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

ATTACHMENT A

PLANT OPERATIONS:

There have been no reactor scrams at Vermont Yankee since June 1991 and our August 1993 shutdown for refueling culminated an operating cycle with a 95.7% capacity factor, our highest on record.

New or improvement initiatives in this area include:

- * Institution of Operations shift crew briefings
- * Institution of Plant Manager Daily Meetings with emphasis on emergent issues
- * Emphasis on improvement of questioning attitude, for example:
 - LER 93-06 Operator questioned CS sparger d/p indication
 - LER 93-13 Discovered anchorage deficiency during switchgear inspection
 - LER 93-15 Inspected and discovered CS pump suction strainers undersized
 - LER 93-16 Discovered component under-rated in RHRSW motor cooling lines
- * Conservative operation with failed fuel during the latter part of the last operating cycle and fuel sipping of all irradiated bundles during the outage to identify the reason for the failure
- * Operator training programs have been improved and effective management emphasis is continuing, for example:
 - frequent observation of simulator training to reinforce training effectiveness and management expectations
 - INPO assist visit to improve training critiques in simulator
 - successful licensing of 4 SRO candidates in 1993
 - self checking training completed for all operators to minimize the occurrence of human errors and improve attention to detail
 - benchmarking of simulator training done at other plants to improve training effectiveness
 - closure of all open NRC items from previous NUREG-1220 Audit
- * The operations planning group has been expanded with the addition of one full time position
- * Six operators currently in training for RO licenses to increase the number of licensed personnel available for each shift
- * Conservative operating philosophy as evidenced by shutting down the plant for repair to a leaking moisture separator valve in December 1993 and remaining shutdown to troubleshoot and repair an unrelated condenser in-leakage problem

MAINTENANCE:

High capacity factor and an absence of plant scrams indicates a high reliability of safety related equipment and an improved questioning attitude.

- * Repaired startup transformer ground which delayed refueling outage several days to assure a reliable power supply available for important systems needed for cold shutdown
- * Independent outage schedule safety review to maximize the number of systems available during any particular outage phase
- * Development of an Outage Guideline that includes minimum level of safety systems that must be available
- * Established a periodic surveillance task and an effective preventative maintenance program to fully resolve the Cooling Tower Deep Basin silting problem
- * Electrical Bus inspection and discovery of original seismic mounting deficiency

Equipment performance following trouble-shooting and maintenance has led, with few exceptions, to high equipment reliability and availability, for example:

- * Significantly improved scram times due to Scram Pilot Solenoid Valve performance after troubleshooting and rebuilds
- * Inspected and repaired significant LP Turbine erosion, even though scheduled for replacement next outage
- * Inspected and repaired both RHR Heat Exchangers
- * Improved EDG reliability due to replacement of "B" EDG cylinder liners during refueling outage
- * Improved condenser in-leakage due to repairs to condenser shell following extensive troubleshooting

Improved training with the establishment of "hands on" laboratories for Instrument and Controls, Mechanical Maintenance, Electrical Maintenance and Chemistry.

In recognition of past problems with surveillance tracking, we have completed our efforts to computerize the surveillance tracking system. This was a significant effort that included providing detailed training to department planning coordinators and resulting in a very useful management information system.

Based on our recognition of an adverse trend in the area of Technical Specification (TS) surveillance compliance, we are currently performing an extensive review of each TS surveillance to ensure proper implementation in procedures. A year-end status of this effort was provided in Reference (c).

ENGINEERING:

Design changes and modifications to the plant have been very effective in enhancing our safety and reliability. Some examples of improvements that occurred during the past year include:

- * Replacement of station air compressors with an air-cooled design, resulting in a more reliable air supply and the elimination of service water cooling requirements.
- * Replacement of two additional low pressure feedwater heaters to improve the long term reliability of these components
- * Replacement of the RHRSW-89 valves, resolving our concern with the reliability of shutdown cooling
- * Installation of EDG supplemental cooling water piping to improve cooling during all modes of plant operation
- * Improvements to the Vernon Tie Line for station blackout enhancement
- * Installation of an RPV level indication modification to preclude gas bubble induced errors
- * Installation of a redundant fuel pool cooling system
- * The planned replacement of both low pressure steam turbine sections for the 1995 outage
- * Installation of a valve leakage monitoring system for key isolation valves on the secondary side of the plant to establish performance losses, target maintenance and preclude unexpected plant transients

We have also completed a re-assessment of the screening approach used in determining if a written 10CFR50.59 safety evaluation is required, based upon experience to date. Refresher training to strengthen and make our process more consistent is being provided to our staff in this area.

The Temporary Modification (TM) process has been strengthened to include a formal engineering review for all TM's and establishment of engineering "ownership" for this process. Older TM's continue to be converted to permanent installations by the design change process and assignment to the 1994 Project Work List.

Improvements are also planned for the LER process through enhanced training and written criteria for developing these reports.

PLANT SUPPORT:

Vermont Yankee was not satisfied with our performance in the security area and set in motion many improvement initiatives to strengthen and restore confidence in this area. Many improvements have been made in the following general categories:

- * New security contractor
- * Benchmarking of six other utility security programs
- * Access Authorization
- * Contingency Response
- * USNRC Reporting Requirements
- * Documentation of Safeguards Events
- * Management Oversight
- * Personnel/Vehicle Search Practices
- * Security Staffing (example- reduction of overtime)
- * Hardware modifications

To assist us in identifying and making appropriate changes in these and other areas we conducted an independent assessment of our programs with security managers from three sites with notably strong programs. Sandia National Labs was also contracted to assess our hardware for potential improvements and we conducted two quality assurance audits of the security programs during 1993. Additionally, there were five (5) NRC inspections of security, resulting in no violations and all previous NRC open items have been closed. As a result of our benchmarking efforts and aggressive self-assessments, we believe our security program has made significant improvements in effectiveness and is now competitive with the best programs in the industry.

In the area of radiation protection, Vermont Yankee implemented the revised 10CFR20 program in August of 1993, just prior to our scheduled refueling and maintenance outage. The successful implementation of the new program helped us accomplish a low collective worker radiation exposure during the outage. We completed all of 1993 with approximately 213 man-rem of exposure, which was well below our goal for this area. Our ALARA program in general has continued to be successful resulting in Vermont Yankee being among the industry's best at minimizing worker radiation dose. Another indicator of improved performance in radiation protection is the total percentage of contaminated surface area in the plant. Vermont Yankee currently has a contaminated surface area of less than 5%, which is among the very lowest in the industry for both PWR's and BWR's.

In the area of low level radioactive waste (LLRW) generation, we have been aggressive in reducing the volume of waste destined for disposal. In 1993 we generated approximately 137 cubic meters, which was well below our goal for this area and continues our downward trend for waste volume.

Vermont Yankee has also undertaken numerous self-assessment and awareness initiatives to promote improvements in industrial safety performance. This also has been very effective as evidenced by no lost time accidents for Vermont Yankee employees during 1993.

The Vermont Yankee NSAR Committee has increased their involvement in the QA audit process through:

- * audit plan presentation to the committee and review of audit results by committee
- * improved trend report of audit findings and presentation to management
- * each NSARC member participating in at least one QA audit per year to assess overall audit effectiveness