YANKEE ATOMIC ELECTRIC COMPANY

Telephone (508) 779-6711
TWX 710-380-7619

580 Main Street, Bolton, Massachusetts 01740-1398

January 31, 1991
BYR 91-013

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

References:
(a) License No. DPR-3 (Docket No. 50-29)
(b) Inspection Report No. 50-29/90-16, dated November 6, 1990
(c) Letter, BYR 90-159, YAEC to USNRC, "Reply to Notice of Violation; 50-29/90-16-02," dated December 6, 1990
(d) Letter, NYR 276-90, USNRC to YAEC, "Inspection Report No. 50-29/90-16," dated December 26, 1990
(e) Letter, FYR 88-76, YAEC to USNRC, "Response to Inspection Report No. 50-29/88-02," dated May 25, 1988

Subject: Response to NRC Letter NYR 276/90, dated December 26, 1990

Dear Sir:

Reference (b) documents a routine safety inspection by Messrs. T. Koshy and M. Markley, at the Yankee Nuclear Power Station (YNPS) in Rowe, Massachusetts on August 21, 1990 - October 1, 1990. Reference (c) informed you that three observations identified in Reference (b) would be addressed with the resident inspector. Subsequent to the submittal of Reference (c), you requested via Reference (d) that YNPS submit our action regarding the observations noted in Reference (b). We hereby submit the following information.

USNRC CONCERN:

"Main Coolant Pump Maintenance

On July 30 - August 13, 1990, the licensee performed maintenance to correct observed motor-to-pump leakage on the No. 4 main coolant pump (MCP). The leak was identified during the initial outage vapor container (VC) inspections. The repair activity entailed removing the MCP motor to the VC charging floor where the seating surface was lapped. Similarly, the pump seating surface was lapped to establish a proper mating surface. Following the lapping, the motor was installed on the pump and the fasteners were appropriately torqued. The MCP is a canned-rotor, canned-stator Westinghouse design.

Overall, radiological control for the MCP maintenance was generally good. Radiation protection (RP) personnel demonstrated noteworthy occupational exposure control for workers. However, the resultant

IE01
1/1

exposure of 18 person-rem was considered high. This was due, in part, to a manual lapping device used by the maintenance department. A total of 11.3 person-rem was expended using the manual lapping tool. The licensee stated that an automatic lapping device was commercially available and would be purchased. Additionally, removing and reinstalling the motor on the pump expended 4.76 person-rem. The licensee attributed this to the tight fit of motor-to-pump interfaces where removal and reinstallation required several attempts.

Although radiological planning and program implementation was good, maintenance for this evolution did not provide personnel with the tools to do the job consistent with maintaining occupational exposure as low as is reasonably achievable (ALARA). Further licensee review is warranted to limit the difficulty in removing and reinstalling the motor."

ACTION TO ADDRESS CONCERN:

As noted in Reference (b), YNPS plans to investigate and procure an automatic lapping device. This item was budgeted and approved during the recently completed 1991 budget and planning cycle. YNPS will ensure that during any future main coolant pump removal, maintenance, and installation that the appropriate controls and tooling are consistent with maintaining occupational exposure As Low As Reasonably Achievable (ALARA).

USNRC CONCERN:

"Transient Material in the Vapor Container

During plant cooldown for the core XXI refueling outage on June 23, 1990, the inspector performed a tour of the vapor container (VC) in conjunction with the licensee performance of their hot leak inspection per OP-4200, Rev. 15, Main Coolant System Leak Inspection or ISI Pressure Test. During the tour, the inspector identified numerous components with boric acid buildup evidencing some degree of main coolant system (MCS) leakage. The licensee similarly identified examples of component leakage. The inspector verified the licensee observations of this leakage to be thorough. In the pressurizer cubicle, the inspector observed a temporary scaffold suspended from the overhead approximately eight feet above the pressurizer heater electrical penetrations. The scaffold board was not secured to the associated supports. Discussions with operations management confirmed that the scaffold had remained in the pressurizer cubicle through the operating cycle. The licensee stated that operators had used the scaffold to perform valve lineups during startup. The licensee was unable to explain why the scaffold was not removed or why a permanent scaffold had not been installed.

Licensee corrective action included issuing maintenance requests to repair the observed leaking components and installing a permanent metal scaffold to replace the wooden platform in the pressurizer cubicle. The licensee counselled the staff to be more thorough in performing VC inspections in preparation for operation.

Inspector review verified the maintenance requests were completed within the scope of outage activities. Although the licensee promptly installed a permanent scaffold in the pressurizer cubicle, operating the plant with an unsecured wood platform does not reflect a good operating philosophy.

The inspector also noted unsecure transient equipment stored on top of the steam generator cubicles and on the broadway outside the bioshield. Some of these items included a portable welding unit, scaffold materials, and I&C equipment in a storage facility. The inspector expressed the concern that unrestrained material stored on the charging floor could cause unanalyzed damage in the event of a Loss Of Coolant Accident (LOCA) or steam break inside containment as well as during a seismic event. The licensee stated that the equipment will be adequately secured and it remains inside the VC due to limited space in plant storage areas. The licensee is currently evaluating the inspector-identified concerns."

ACTIONS TO ADDRESS CONCERNS:

As noted in Reference (b), a maintenance request was issued for the installation of a permanent metal scaffold to replace the wood platform in the pressurizer cubicle. Prior to the completion of the refueling outage, the wood platform (a single board) was removed and replaced with permanently installed metal grating and supports. In addition to counseling the staff to be more thorough in performing VC inspections, YNPS has implemented a more rigorous inspection of the entire facility. This material condition inspection program is implemented via Procedure AP-0040, "Plant Inspection Program" and provides for quarterly inspections of the facility and of the containment when accessible during maintenance or refueling outages.

With regard to the concerns of unsecured transient equipment stored in the containment the following actions were taken:

- A containment entry was made to address the concerns of the inspector.
- Additional equipment, used to support a refueling outage, was removed from containment.
- Equipment that remained was checked to ensure that it was adequately secured.
- If additional equipment needed securing, it was done at that time.

The outage supervisor will ensure that appropriate procedures are revised to include removal and storage of transient materials from containment when possible. When removal is not possible, procedures will be revised to require that equipment be properly secured.

USNRC CONCERN:

Assessment as to the Adequacy of Installed Fuses

This item is related to the inadequate controls on the quality and size of a fuse that was used for replacement during corrective maintenance. The replacement fuse, utilized in the Vapor Container Pressure Channel VC-PI-243, had not been procured through the Quality Assurance Program and the size of the required fuse was not documented. The licensee responded to this violation in a letter dated May 25, 1988. The completed corrective action included a program to dedicate the commercial grade fuses, a system walkdown in refueling outage Cycles 19-20, 20-21, and a final verification walkdown during the Cycle 21-22.

The inspector reviewed licensee actions during Cycle 20-21. The licensee has completed the system walkdown; however, no assessments were made to the acceptability of the existing fuses. The inspectors discussed the need for a preliminary assessment to ensure the adequacy of the fuses that are important to the safety of the plant. This item is unresolved pending NRC review of the licensee action to assess the size and rating and quality of the fuses. (90-16-04)

ACTIONS TO ADDRESS CONCERNS

As stated in Reference (e), a program has been established for the dedication of commercial grade fuses to be used in quality assurance applications. Plant maintenance personnel were instructed in this program.

As discussed above, the walkdown of the plant quality assurance fuses has been completed. Fuse documentation worksheets have been prepared for all of the over-700 fuses identified during the walkdown.

A work instruction has been prepared and is being utilized to evaluate the fuses installed to ensure that they are properly sized. The evaluation process has been prioritized to complete the most important fuses first. To date, initial evaluations have been performed on all highest priority fuses and a significant portion of the second level priority fuses. Included in the highest priority fuses are key dc fuses, breaker control, and vital bus fuses. Upon completion of the fuse sizing evaluation, all identified fuses will have been appropriately rated. Completion of all remaining fuse evaluations is scheduled for September 1, 1991, with final documentation completed by December 31, 1991.

Results of both the walkdowns and the initial evaluations indicate that the methods previously utilized to control the replacement of fuses by plant maintenance were effective in maintaining control of the installed fuses.

We trust that you will find this response satisfactory; however, if you have any questions, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

J. K. Thayer

J. K. Thayer
Vice President/Manager of Operations

JKT/gjt/WP72/176

cc: USNRC Region I
USNRC Resident Inspector, YNPS