

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

July 23, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. Darrell G. Eisenhart, Director
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Serial No. 045C
NO/PEC/DWL:jdm:2003N
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
NUREG-0737 ITEM II.D.3

The purpose of this letter is to advise you of the status of the qualification program for the B&W acoustical monitoring system for direct indication of pressurizer relief and safety valve position (NUREG-0737, Item II.D.3). After experiencing various delays, the B&W test program was completed, and the test report was received by Veeco in late March 1984. Veeco immediately began engineering of the system modifications required by the qualification program. However, several technical concerns arose from this engineering. Due to the delays in receiving the test report, the problems encountered in engineering the system modifications and the additional requirements imposed on this system by Regulatory Guide 1.97, Veeco concluded that additional system review was required. This review would ensure the final valve position indication system is completely qualified and the installed system meets applicable Regulatory Guide 1.97 requirements. As a result, the system upgrade will be included under the implementation schedule for Regulatory Guide 1.97 variables, which is the first refueling outage after July 1985.

Background

Veeco installed the non-safety grade B&W acoustical monitoring system as a short-term Post-TMI modification. Veeco's initial response to NUREG-0737, dated December 15, 1980, contained the B&W test program plan for qualifying the system and indicated that test results would be available in the summer of 1981. Subsequent revisions to Veeco's NUREG-0737 response have revised this date because of delays in the B&W test program. Our letters dated January 28, 1983 (Serial No. 045), July 29, 1983 (Serial No. 045A) and November 30, 1983 (Serial No. 045B), again revised the completion date. Our letter dated February 21, 1984 (Serial No. 088), which clarified the Veeco Regulatory Guide 1.97 implementation schedule, stated that full implementation of the acoustical monitoring system improvements would be completed on the schedule for the Regulatory Guide 1.97 variables.

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As stated above, Vepco received the B&W test report in late March 1984. Based on the test results, the Vepco systems as installed are not environmentally qualified. Certain modifications, such as moving the line drivers outside containment and substituting coaxial for twisted pair cable inside containment were recommended by B&W. Upon identification of the proposed modifications, Vepco immediately initiated work on a design change for upgrading the existing system. After several weeks of work, however, problems were identified with the proposed modifications relating to (1) potential system signal interferences with the as-built plant and (2) difficulties in obtaining qualified cable splices for this particular application. In order to install a system that is qualified and also meets the requirements of Regulatory Guide 1.97, Vepco has concluded additional time is required to perform a complete system review prior to implementing any modifications.

Commitment

Due to the difficulties of qualifying the existing system as discussed above, Vepco proposes to perform a complete review of the system design and applicable requirements for system upgrade. This review will consider both the necessary modifications to qualify the present system as well as other system options that meet regulations.

Vepco plans to complete this system review by the end of 1984. The final design will be (1) environmentally qualified, (2) meet the requirements of Regulatory Guide 1.97, and (3) installed by the end of the first refueling outage after July 1985. This outage is presently scheduled in 1986 for each of the two units.

Very truly yours,


W. L. Stewart

cc: Mr. James P. O'Reilly
Regional Administrator
Region II

Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Mr. Don J. Burke
NRC Resident Inspector
Surry Power Station