VIRGINIA ELECTRIC AND POWER COMPANY

RICHMOND, VIRGINIA 23261

July 25, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. B. Joe Youngblood, Chief
    Licensing Branch 1
    Division of Licensing
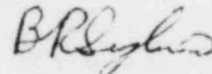U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 641
NO/FHT:ms
Docket No. 50-339
License No. NPF-7

Dear Mr. Denton:

PERIODIC LEAK TESTING OF PRESSURE ISOLATION VALVES
NORTH ANNA POWER STATION UNIT NO. 2

In response to a request from members of your staff, we are providing the attached additional information on the above subject. If you have any questions or require additional information, please contact this office.

Very truly yours,

B. R. Sylvia
Manager - Nuclear
Operations and Maintenance

Attachment

cc: Mr. James P. O'Reilly
    Office of Inspection and Enforcement
    Region II
    Atlanta, Georgia 30303

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NORTH ANNA UNIT 2

We have completed a preliminary review of the SER Supplement entitled "Periodic Leak Testing of Pressure Isolation Valves." Our response to the suggested commitments are as follows:

1. The systems which have the subject design configurations include high head and low head safety injection, safety injection accumulators, and the RHR system.

    a. We agree to a leakage limit of 1 gpm for testing of the pressure isolation valves in the high head and low head safety injection systems.

    b. In the case of the accumulators, leakage past the accumulator pressure isolation valves would result in an increase in accumulator level which would be alarmed and rapidly identified by the control room operator. The leakage test system configuration tests the accumulator check valves at reduced differential pressure. We will commit to a leakage limit equivalent to 1 gpm per valve at normal RCS pressure. This leakage limit will be sufficient to quickly identify any significant deterioration in valve seating capability.

    c. The RHR system has two pressure interfaces, inlet from the RCS and return to the RCS. These valves do not have leak test connections presently installed.

        For the RHR inlet valves, 2 MOV's in series, leakage estimates will be obtained by an RCS leakage measurement at reduced differential pressure while alternately exposing each of the inlet MOV's to the differential pressure. This method will provide a leakage estimate adequate to determine if any significant valve deterioration has occurred. We commit to a leakage limit of 5 gpm per valve which is consistent with the RCS leakage measurement capabilities at reduced pressure.

        The RHR return valves, two MOV's in parallel, will be tested at reduced pressure using the accumulator as the pressure source. The leakage limit for these valves will also be 5 gpm per valve which is sufficient to identify any significant valve deterioration.

        We will install test connections on the RHR inlet and return valves prior to start up of Unit 2 from the first refueling outage. This will enable us to perform more accurate leak rate measurements.

    d. We commit to categorizing the RHR valves as Category A.