VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 12, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Serial No. 477
PSE&C/CMRjr:mac:wang

Docket Nos. 50-280
50-281

License Nos. DPR-32
DPR-37

Dear Mr. Denton:

MODIFICATION INFORMATION
REANALYSIS OF PIPING SYSTEMS
SURRY POWER STATION UNIT 1

Our letter of June 8, 1979 (Vepco Serial No. 458) provided you information to supplement our report of June 5, 1979 (Vepco Serial No. 453) entitled "Report on the Reanalysis of Safety-Related Piping Systems, Surry Power Station Unit 1." In our letter report of June 8, 1979, we identified two stress problems, 508 and 630, that required hardware modifications.

The purpose of this letter is to provide available information on the scope of the hardware modifications as identified in our June 8 letter.

Problem 508

Due to overstress at the elbows on the discharge side of residual heat removal pumps 1-RH-P-1A and 1B, hardware modifications are required to bring these areas within allowable stress limits. The overstressed condition occurs in the low pressure portion of the piping system. The reasons for the overstress condition can be attributed to differences between the original and current analyses with regard to intermodal combinations, stiffness values for supports and stiffness values for pump nozzles. This portion of the piping system is isolated from the reactor coolant boundary during normal operation.

The addition of a vertical constraint on a 10 in. line (RH-4-602) to lower the stresses on the discharge elbow of pump 1-RH-P-1A is required.

The addition of a vertical constraint on a 10 in. line (RH-5-602) and the addition of a vertical constraint and a lateral constraint on a 14 in. line (RH-2-602) is required to bring the discharge elbow for pump 1-RH-P-1B to within allowable stress limits.

Add: W. Russell

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Problem 630

Due to the high stress intensification factors experienced at the 6 in. lateral connections to the discharge header, the safety relief valve piping requires a hardware modification to alleviate a thermal overstress problem at one of the connections.

This modification consists of removing an existing anchor on a 12 in. line (RC-36-602) and replacing this with two horizontal and two vertical shock suppressors and a spring hanger, thus lowering the thermal stress at the connection.

This problem was not encountered in the original analysis because lateral stress intensification factors were not applied at these connections. The modification is downstream of the relief valve in the low pressure portion of the piping.

The modifications identified in the June 5 report and our letter report of June 8 (supplemented herein) are expected to be completed by June 20, 1979.

Very truly yours,

W. C. Spencer
Vice President - Power Station
Engineering and Construction Services