VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

February 10, 1992

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. 91-655A
NO/ETS R1
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
COMPONENT COOLING HEAT EXCHANGER CHANNEL HEAD MATERIAL VERIFICATION TESTING

By letters Serial Nos 87-090, 87-090A, and 87-090B, dated February 24, 1987, April 6, 1987, and September 23, 1988, respectively, we requested relief from certain ASME Section XI requirements on the replacement of the Component Cooling Heat Exchanger (CCHX) channel heads. Subsequently, three of the four CCHX heat exchangers have been replaced and no longer require the separate ASME Section XI relief for their channel heads. Replacement of the fourth heat exchanger ('C' CCHX), during the upcoming Unit 1 refueling outage, is being postponed due to the acceptable performance of the installed heat exchanger and the large amount of plant maintenance and modification work currently scheduled for that outage. As a consequence, ASME Section XI relief is still required for the 'C' CCHX. Our December 6, 1991 letter (Serial No. 91-655) provided additional information to support our evaluation of acceptability for the continued use of the channel heads. In a January 30, 1992 telephone conversation with your staff, additional materials verification testing was agreed upon to complete the evaluation process for the 'C' CCHX channel heads.

The following material verification testing will be performed on the "C" Component Cooling Heat Exchanger channel heads prior to the Unit 1 refueling outage.

- Alloy Verification - A Spectrotest F chemical analysis will be performed on the channel head shell to verify that the material composition is within the acceptance criteria provided in ASTM A516.

- Hardness - An impact type hardness test using Rockwell "B" standards will be performed to verify that the material hardness is within allowable limits as specified in ASTM A516.

- Thickness - Ultrasonic testing of the CCHX channel head will be performed at several locations to verify that the actual wall thickness is greater than the minimum design wall thickness.

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Each of these tests will be performed in place with portable equipment and the results compared to the manufacturer's specification. If any anomalies are identified during the testing, we will notify you.

As noted in our December 6, 1991 letter, the material condition of the 'C' CCHX channel heads will be periodically monitored. If any channel head degradation is identified that requires a Code repair or prevents the heat exchanger from meeting Section XI operability requirements, the 'C' heat exchanger channel heads will be repaired during the operating cycle and the entire heat exchanger replaced at the next outage of sufficient duration.

Should you have any additional questions or concerns, please contact us.

Very truly yours,

W. L. Stewart
Senior Vice President - Nuclear

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