VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

May 20, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Serial No. 085F
PSE/JEW:jdm:0478C
Docket Nos.: 50-280
50-281
License Nos.: DPR-32
DPR-37

Gentlemen:

ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT
SURRY POWER STATION UNITS 1 AND 2

This letter is in response to 10 CFR Part 50, paragraph 50.49(g) which requires each holder of an operating license to identify the electrical equipment important to safety and submit a schedule for qualification or replacement of such equipment. Vepco has developed a master list of equipment covered by 10 CFR Part 50, paragraph 50.49(b) (1) and (3) (Attachment 1). Using the status column of this list, the qualification status of each piece of equipment can be determined. For all equipment identified in the status column as scheduled for replacement (R) or modification (M), the schedule for this activity is as follows:

Unit 1: Replacement or modification is scheduled for the Cycle 7-8 refueling outage, which is presently scheduled to start in the third quarter of 1984. This is consistent with the requirements of 10 CFR 50.49(g).

Unit 2: Replacement or modification is scheduled for the Cycle 7-8 refueling which is presently scheduled to start in the first quarter of 1985. This is consistent with the requirements of 10 CFR 50.49(g).

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In response to 10 CFR Part 50, paragraph 50.49(b) (2), Vepco is developing criteria to address this equipment. It is anticipated the equipment in this category, if any, and the methodology used to identify this equipment will be provided to you on or before November 16, 1983. Additionally, any corrective actions required to qualify or replace equipment identified for compliance will be completed on a schedule consistent with the requirements of 10 CFR Part 50, paragraph 50.49.

Attachment 2 provides the justification for continued operation (JCO) for equipment not qualified as requested in your letter of January 26, 1983 and amended by your letter of April 4, 1983. Additionally, JCO information was provided by our letters of March 9, 1983, (SN-085C) and May 11, 1983, (SN-085E). All other JCO's previously submitted have been reviewed and determined to be applicable, or the equipment has been replaced with qualified equipment.

This completes the response requirements of the January 26, 1983 and April 4, 1983 letters and 10 CFR Part 50, paragraph 50.49(g).

Very truly yours,

W. L. Stewart

Attachments

cc: Mr. James P. O'Reilly w/attachments
Regional Administrator
Region II
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

Mr. D. J. Burke w/attachments
NRC Resident Inspector
Surry Power Station

Mr. J. Don Neighbors w/attachments
NRC Project Manager - Surry
Operating Reactors Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTACHMENT 2
VEPCO LETTER OF MAY 20, 1983
SERIAL NUMBER 085F

TECHNICAL EVALUATION REPORT
ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT
SURRY POWER STATION UNITS 1 AND 2

RESPONSE TO NRC LETTERS OF JANUARY 26, 1983 AND APRIL 4, 1983

Charging Pump Component Cooling Water
Pump Motors

1-CC-P-2A
1-CC-P-2B
2-CC-P-2A
2-CC-P-2B

JUSTIFICATION FOR CONTINUED OPERATION

These motors will be replaced within the schedule established by 10 CFR 50.49. For interim operation, Appendix D of the TER indicates that additional justification should be provided for charging pump operation more than one hour after assumed CCW pump failure. That justification follows.

The charging pump component cooling water pumps provide seal and cooling water for the charging pumps. The flow from the component cooling water pumps cools the charging pumps while they are in their safety mode of safety injection.

In the event of a cooling water pump failure, the manufacturer has determined that the charging pumps can operate indefinitely in normal ambient conditions without seal water coolant as long as the pumped fluid is less than 115°F. There is no HELB that can simultaneously render both the charging pump and CCW pump environments harsh.

In the safety injection mode the suction of the charging pumps is diverted from the normal source, at the volume control tank, to the refueling water storage tank by the safety injection signal. The water in the refueling water storage tank is cooled by Tech Spec requirement to a temperature of slightly below 45°F, which ensures that the charging pumps can operate in the event of any HELB that might cause failure of the CCW pump motors.

It is concluded that the failure of the component cooling water pumps will not hinder the safety mode of safety injection, and will have no impact on plant safety.