

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

W. L. STEWART  
VICE PRESIDENT  
NUCLEAR OPERATIONS

May 6, 1983

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
Attn: Mr. Robert A. Clark, Chief  
Operating Reactors Branch No. 3  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Serial No. 257  
NO/SBE/JHL:acm  
Docket No. 50-339  
License No. NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION UNIT NO. 2  
STATUS OF LICENSE CONDITION 2.C(4)(c)

North Anna Unit 2 License Condition 2.C(4)(c) states, "VEPCO shall test the narrow and wide-range resistance temperature detectors for the reactor coolant system by the Loop Current Step Response method each calendar quarter until a long-term qualified resistance temperature detector is available. Resistance temperature detectors will be replaced if unsatisfactory Loop Current Step Response test results are acquired."

Furthermore, "For narrow and wide-range resistance temperature detectors not replaced at a given refueling outage, VEPCO shall assure that resistance temperature detector cable connectors are adequately sealed and shall use the Arrhenius methodology to affirm that the resistance temperature detector material has not endured significant degradation due to environmental parameters. The results of this affirmation shall be added to central environmental qualification files."

North Anna Unit 2 is currently in its second refueling outage. Twenty-three resistance temperature detectors (RTD's) have been replaced with qualified RTD's. The location of these RTD's are: A, B and C Loop Narrow Range (RTD Manifold) with six RTD's per loop,  $T_H$  and  $T_C$  Protection,  $T_H$  and  $T_C$  Control,  $T_H$  and  $T_C$  Spare, A Loop  $T_H$  and  $T_C$  Wide Range, B Loop  $T_H$  and  $T_C$  Wide Range and C Loop  $T_H$  Wide Range. The C Loop Wide Range Cold Leg  $T_H$  RTD (TE-2430) has not been replaced due to an obstruction that cannot be removed at this time. The obstruction is a 3" component cooling line (Category 1) that supplies cooling water to the shroud on C Reactor Coolant Pump. The vendor is preparing a redesigned RTD that will fit into the narrow clearance, but this will not be available for this outage. The redesign RTD is expected to be available by the next refueling outage which is currently scheduled to occur on November 16, 1984.


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In the interim, a new Rosemount RTD Model 176KS, that has been qualified by the Arrhenius methodology, will be installed until the redesigned RTD becomes available. This RTD will be tested by the Loop Current Step Response method each calendar quarter and VEPCO shall assure that the RTD cable connectors are adequately sealed and the Arrhenius methodology shall be used to affirm that the RTD material has not endured significant degradation due to environmental parameters until it is replaced as required by License Condition 2.C(4)(c).

VEPCO feels that the proposed recommendation for the C Loop Wide Range Cold Leg RTD is adequate until a redesigned RTD is available. The margin of safety is not reduced by not replacing this RTD since a qualified RTD will be used in the interim.

Very truly yours,

  
W. L. Stewart

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

Mr. M. B. Shymlock  
NRC Resident Inspector  
North Anna Power Station