VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

10 CFR 50.55a

April 20, 2004

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

Serial No. 02-642C
NL&OS/GDM R0
Docket No. 50-280
License No. DPR-32

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT 1
FOURTH INTERVAL INSERVICE INSPECTION PROGRAM
REQUEST FOR ADDITIONAL INFORMATION

In a letter dated December 12, 2002 (Serial No. 02-642) Virginia Electric and Power Company (Dominion) submitted the inservice inspection (ISI) program for the fourth ISI interval for Surry Unit 1 for Class 1, 2, and 3 components and component supports. The NRC subsequently requested additional information to facilitate their review of Surry's fourth interval ISI Program submittal, and Dominion provided a response to the NRC's request in a letter dated December 5, 2003 (Serial No. 02-642A).

Mr. S. R. Monarque, the Surry NRC Project Manager, provided two additional NRC questions in a telephone call to Dominion on March 15, 2004. Our response to these questions is provided in the attachment.

If you have any questions or require additional information, please contact Mr. Gary D. Miller at (804) 273-2771.

Very truly yours,

Leslie N. Hartz
Vice President – Nuclear Engineering

Attachment

Commitments made in this letter: None.

cc: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
Suite 23T85
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8931

Mr. G. J. McCoy
NRC Senior Resident Inspector
Surry Power Station

Mr. R. A. Smith
Authorized Nuclear Inspector
Surry Power Station

Attachment

Response to NRC Request for Additional Information
Fourth Interval ISI Program Submittal

Surry Power Station Unit 1

1. *Relief Request R-001*

   On June 13, 2002 you submitted Relief Request R1 for Surry Unit 1, and we approved this relief request on September 23, 2003 for the remainder of the third 10-yr ISI interval which ended October 13, 2003. Since your request for relief for Surry Unit 1 R-001 is identical to the request made for Surry Unit 1 requested on June 13, 2002, we want to confirm that all of the information supplied with regard to Surry Unit 1 relief request R1 is also valid for relief request R-001 submitted on December 12, 2002.

   Dominion Response

   The information provided on June 13, 2002, and in subsequent responses to NRC requests for additional information, concerning Surry Unit 1 Relief Request R1 is also valid for Surry Unit 1 Relief Request R-001 submitted on December 12, 2002.

2. *Relief Request SPT-004*

   Vepco indicated that bare-metal visual examination along with the alternative VT-2 exam when the containment is at atmospheric conditions effectively demonstrated that the lower reactor pressure vessel head integrity is maintained. Vepco has committed to the alternative VT-2 exam each refueling outage; however, Vepco has not committed to perform a bare-metal visual examination each outage, and your response leaves open the possibility that bare-metal visual examinations may not be performed each refueling outage for the remainder of the 4th 10-yr ISI interval. Therefore, the staff finds it difficult to approve the relief request unless Vepco is able to commit to perform both the alternative VT-2 inspection and the bare-metal examination each refueling outage. Therefore, the NRC would like to get a commitment from Vepco to perform a bare-metal visual examination each refueling outage.

   Dominion Response

   Relief Request SPT-004 has been revised to include the requirement to perform a bare metal VT-2 visual examination each refueling outage for evidence of boric acid leakage/corrosion on the bottom of the reactor vessel when the containment is at atmospheric conditions. Revision 1 of Relief Request SPT-004 is enclosed.

RELIEF REQUEST SPT-004 Rev. 1

I. IDENTIFICATION OF COMPONENTS

System: Reactor Coolant (RC)

Components: Partial Penetration Welds at the Bottom of the Reactor Vessel

II. CODE REQUIREMENTS

Section XI of the ASME Boiler and Pressure Vessel Code, 1998 Edition with Addenda up to and including the 2000 Addenda, Category B-P, Item No. B15.10, requires a visual (VT-2) examination of the bottom of the reactor vessel during the system leakage test of IWB-5220.

III. BASIS FOR RELIEF

To meet the Section XI pressure and temperature requirements for the system leakage test of the reactor vessel, the SPS 1 reactor containment is required to be at sub-atmospheric pressure. Station administrative procedures require that self-contained breathing apparatus must be worn for containment entries under these conditions. This requirement significantly complicates the visual (VT-2) examination of the bottom of the reactor vessel during testing. Access to the bottom of the reactor vessel requires the examiner to descend several levels by ladder and navigate the entrance leading to the reactor vessel. In addition to these physical constraints, the examiner must contend with extreme environmental conditions: elevated air temperatures due to reactor coolant at temperatures above 500 degrees F and limited air circulation in the vessel cubicle. Also, the limited capacity of the breathing apparatus further encumbers the performance of the examination.

These factors increase the safety hazard associated with the examination. As a minimum, the examiner is forced to perform the examination under considerable physical burden. To place the examiner under this increased risk and burden is not justifiable. This combination of conditions does not exist during the refueling outage when the proposed alternative examination would take place. The proposed alternate examination would be performed under conditions that are safer and allow for a more thorough examination.

RELIEF REQUEST SPT-004 Rev. 1

IV. ALTERNATE PROVISIONS

Technical Specifications have surveillance requirements that monitor leakage and radiation levels. The applicable Technical Specification requirements will be satisfied through the fourth inservice inspection interval. Furthermore, the incore sump room has a level alarm in the control room requiring operator action. In the event of a leak, these measures would identify any integrity concerns associated with this area. In addition, a VT-2 bare-metal visual examination for evidence of boric acid leakage/corrosion will be conducted each refueling outage on the bottom of the reactor vessel when the containment is at atmospheric conditions.

The monitoring methods of the station and the VT-2 bare-metal visual examination of the area each refueling outage provide an acceptable level of quality and safety. Because of the burden and potential safety challenges caused by the sub-atmospheric conditions of the containment, the Code required examinations at the bottom of the reactor vessel during system leakage tests results in a hardship without a compensating increase in quality and safety over the proposed alternative. Therefore, approval of this request for relief is requested in accordance with 10 CFR 50.55a(a)(3)(ii).

(Note: A similar relief request was approved for North Anna Unit 1 for that unit's third inservice inspection interval under TAC NO. MA5750. Requests for relief were also approved for North Anna Unit 2, third inservice inspection interval under TAC No. MB2280; and for Surry Units 1 and 2, third inservice inspection intervals under TAC Nos. MB1083 and MB1084, respectively.)