

September 20, 2006

Mr. David A. Christian  
Sr. Vice President  
and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060-6711

SUBJECT: NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2, RECEIPT OF  
RESPONSE TO GENERIC LETTER 2003-01 "CONTROL ROOM  
HABITABILITY" (TAC NOS. MB9827 AND MB9828)

Dear Mr. Christian:

The U.S. Nuclear Regulatory Commission (NRC) acknowledges the receipt of your responses to Generic Letter (GL) 2003-01, "Control Room Habitability," dated August 11, 2003 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML032310416), and March 30, 2004, (ADAMS Accession No. ML040970428). This letter provides a status of your response and describes any actions that may be necessary to consider your response to GL 2003-01 complete for North Anna Power Station, Unit Nos. 1 and 2 (North Anna 1 and 2).

The GL requested confirmation that your control room meets the design bases (e.g., General Design Criteria (GDC) 1, 3, 4, 5, and 19, draft GDC, or principal design criteria), with special attention to: (1) Determination of the most-limiting unfiltered and/or filtered inleakage into the control room and comparison to values used in your design bases for meeting control room operator dose limits from accidents (GL 1(a)); (2) Determination that the most-limiting unfiltered inleakage is incorporated into your hazardous chemical assessments; and (3) Determination that reactor control capability is maintained in the control room or at the alternate shutdown location in the event of smoke (GL 1(b)). The GL further requested information on any compensatory measures in use to demonstrate control room habitability, and plans to retire these compensatory measures (GL 2).

By letter dated March 30, 2004, you reported the results of the American Society for Testing and Materials E741 tracer gas tests for the North Anna 1 and 2 control room, which is a common control room pressurized for accident mitigation. This analysis showed that the maximum tested value for inleakage into the Control Room Envelope (CRE) was 150 cfm in the non-pressurized alignment, which is less than the value of 500 cfm assumed in the design-basis radiological analysis for control room habitability (CRH).

You indicated the toxic chemical assessments were evaluated on the basis of no action being taken by the control room operator (i.e., normal or emergency supply system remains operating). As such, you assumed the nominal flow of an emergency supply fan (1000 cfm) for unfiltered inleakage value in your toxic chemical design basis analysis. Since the maximum tested inleakage value into the CRE is 150 cfm, you concluded that the most-limiting unfiltered inleakage into the CRE is incorporated into the hazardous chemical assessments. You also

indicated that reactor control capability is maintained from either the control room or the alternate shutdown panel in the event of smoke.

The GL further requested an assessment of the Technical Specifications (TSs) to determine if they verify the integrity of the CRE, including ongoing verification of the inleakage assumed in the design-basis analyses for CRH, in light of the demonstrated inadequacy of a delta ( $\Delta$ ) P measurement to alone provide such verification (GL Item 1(c)). A schedule was provided in the March 30, 2004, submittal for revising the surveillance requirement in the TS to reference an acceptable surveillance methodology. In the March 30, 2004, submittal you committed to submitting a proposed TS change that will incorporate the intent of Technical Specification Task Force (TSTF)-448, "Control Room Habitability," within 6 months following the NRC staff's approval of TSTF-448.

The information you provided also supported the fact that there are no compensatory measures in place to demonstrate CRH, and concluded that you are committed to meet the GDC regarding CRH.

Your commitment to submit a license amendment request based on TSTF-448, following the NRC staff's formal review and approval of this TSTF, is acceptable for purposes of closing out the NRC staff's review of GL 2003-01 for North Anna 1 and 2.

Sincerely,

*/RA/*

Stephen R. Monarque, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

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