

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

October 12, 2005

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Serial No. 05-621  
NL&OS/GSS R0  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

**VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)**  
**NORTH ANNA POWER STATION UNITS 1 AND 2**  
**ANNUAL SUBMITTAL OF TECHNICAL SPECIFICATION BASES CHANGES**  
**PURSUANT TO TECHNICAL SPECIFICATION 5.5.13.d**

Pursuant to Technical Specifications (TS) 5.5.13.d, "Bases Control Program," Dominion hereby submits the changes to the Bases of the Technical Specifications implemented since October 2004.

Each Bases change to the Technical Specifications was reviewed and approved by the Station Nuclear Safety and Operating Committee. It was determined that the changes did not require a change to the Technical Specifications or license, or involve a change to the UFSAR or Bases that required NRC prior approval pursuant to 10 CFR 50.59. A summary of each Bases change implemented since October is provided in Attachment 1. Attachment 2 is an electronic copy of the entire TS Bases through Revision 21 for your information.

If you should have any questions regarding this submittal, please contact Mr. Thomas Shaub at (804) 273-2763.

Sincerely,



Leslie N. Hartz  
Vice President – Nuclear Engineering

Attachments

1. Summary of Bases Changes
2. Current Bases through Revision 21 to Technical Specification Bases (CD)

Commitments made in this letter: None

A001

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**ATTACHMENT 1**

**Serial No. 05-621**

**SUMMARY OF BASES CHANGES  
FROM OCTOBER 2004 TO OCTOBER 2005**

**Virginia Electric and Power Company  
(Dominion)  
North Anna Power Station Units 1 and 2**

## Summary of Bases Changes

### Reinstatement of the Discussion of Note for the Performance of COT per SR 3.4.12.7 (Bases – SR 3.4.12.7)

This change revised the Bases for SR 3.4.12.7 to reinstate the discussion of the Note, which permits the performance of the Channel Operational Test (COT) within 12 hours after entry into a Mode of Operation where the PORVs are required to be operable to provide low temperature overpressure protection. Changes were based upon the results of a conference call with the NRC Staff on July 14, 2004, whereby it was determined that the Note and the ability to perform the COT within 12 hours of entry into that Mode would be maintained to provide consistency with the standard Technical Specifications.

### Alternate Source Term (Bases – Applicable Safety Analysis 3.4.13)

These changes revised the Applicable Safety Analysis discussion of Bases 3.4.13 to be consistent with the analyses of the Steam Generator Tube Rupture and Main Steam Line Break based upon the Alternate Source Term. Changes reflect the benefits obtained by implementing the alternate source term documented in NUREG-1465 as the design basis source term for North Anna Power Station.

### Bases SR 3.7.1.1 Reference Correction (Bases SR B 3.7.1.1 and References B 3.7.1)

This change removed an incorrect reference to ASME "Section XI" that had been incorporated into the Bases 3.7.1.1, Surveillance Requirements Section associated with the Main Steam Safety Valves.

### Impact of a High Energy Line Break on the Main Control Room/Emergency Switchgear Room (MCR/ESGR) Air Conditioning System (ACS) (Bases Applicable Safety Analysis and Reference for B 3.7.11)

These changes deleted the description of the potential for a high-energy line break in the Turbine Building, its associated impact on the MCR/ESGR ACS and reference to the EQ Technical Report documenting the EQ design basis for the control room chillers. The description and associated impact, as well as, reference to the EQ Topical Report were relocated to the Bases of a new Technical Requirement for the MCR/ESGR ACS within the Technical Requirements Manual.

**Qualified Available Sources of Off-Site Power to the Emergency Bus (Bases Background and LCO B 3.8.1)**

These changes better define what portion of the switchyard is considered part of the grid and which circuits from the switchyard are the five qualified independent offsite sources to the station ESF (emergency) buses. Additional clarification is also provided for each unit and for the station with regard to required offsite sources.

**Clarification for Required Automatic Load Sequencing Timing Relays (Bases LCO and Actions K.1 and K.2 for B 3.8.1)**

These changes clarify the Bases B 3.8.1, AC Sources – Operating, so that “required” automatic load sequencing timing relays must be operable and that a “required” timing relay is one whose host component is capable of automatically loading onto an emergency bus. The Action Section of B 3.8.1 for K.1 and K.2 was revised to clarify that upon implementation of Action K.2.1, the inoperable sequencing timing relay is no longer required.

**Alternate Source Term (Bases B 2.1.2, B 3.1.1, B 3.3.1, B 3.4.13, B 3.4.16, B 3.6.4, B 3.6.6, B 3.6.7, B 3.7.2, B 3.7.7, B 3.7.10, B 3.7.11, B 3.7.12, B 3.7.13, B 3.7.14, B 3.7.15, B 3.7.16, B 3.8.2, B 3.8.5, B 3.8.8, B 3.8.10, B 3.9.4 and B 3.9.7)**

These changes reflect the benefits obtained by implementing the Alternate Source Term (AST) documented in NUREG-1465 as the design basis source term for the North Anna Power Station, and the operational changes that were allowed by the reanalyses of the design basis accidents using the methodologies described in Regulatory Guide 1.183.

The bases changes noted above were submitted to the NRC on November 3, 2004 and incorporated into the Bases after NRC approval of the associated Technical Specification change (Amendments 240 for Unit 1 and 221 for Unit 2 on September 13, 2005).

**Post Accident Monitoring (PAM) Instrumentation and Containment Hydrogen Recombiners (Bases Deletes LCO Item 12 for B 3.3.3 and SR 3.3.3.2, Deletes Portion of SR B 3.3.3.1, and Deletes entire B 3.6.9)**

These changes delete the entire Bases for the Hydrogen Recombiners (B 3.6.9), delete reference to the containment hydrogen analyzers in the LCO for B 3.3.3 and delete SR 3.3.3.2. Changes are consistent with Revision 1 of NRC Approved Industry/Technical Specification Task Force Standard Technical Specification Change Traveler, TSTF-447, “Elimination of Hydrogen Recombiners and Change to Hydrogen

and Oxygen Monitors.” The availability of this Technical Specification improvement was announced in the Federal Register as part of the Consolidated Line Item Improvement Process (CLIIP).

The bases changes noted above were submitted to the NRC on September 9, 2004 and incorporated into the Bases after NRC approval of the associated Technical Specification change (Amendments 238 for Unit 1 and 219 for Unit 2 on March 22, 2005).

**Revised RCS Pressure/Temperature Limits and LTOPS Criteria – Renewed License Period (Bases LCO B 3.4.3, LCO B 3.4.6, LCO B 3.4.7, Background B 3.4.10, Applicability B 3.4.10, Actions B.1 and B.2, Background B 3.4.12, Applicable Safety Analysis B 3.4.12, LCO B 3.4.12, Applicability B 3.4.12, and Actions C.1, C.2, D.1, D.2 and E.1 B 3.4.12)**

These changes revise the Reactor Coolant System (RCS) Pressure/Temperature operating limits, Low Temperature Overpressure Protection System (LTOPS) setpoint allowable limits, LTOPS Enable Temperature values that are valid for cumulative core burnups up to 50.3 Effective Full Power Years (EFPY) for Unit 1 and 52.3 EFPY for Unit 2 (corresponding to the period of the renewed license).

The bases changes noted above were submitted to the NRC on July 1, 2004 and incorporated into the Bases after NRC approval of the associated Technical Specification change (Amendments 242 for Unit 1 and 223 for Unit 2 on August 8, 2005).