

**VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261**

October 12, 2004

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

Serial No. 04-486
NL&OS/GSS R1
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
SUBMITTAL OF TECHNICAL SPECIFICATION BASES CHANGES
PURSUANT TO TECHNICAL SPECIFICATION 5.5.13.d

Pursuant to the Technical Specifications Bases Control Program, Dominion hereby submits changes to the Bases to the Technical Specifications for your information. These changes revised the various Bases sections associated with Reactor Core Safety Limits, RCS Safety Limits, Moderator Temperature Coefficient, Rod Group Alignment Limits, Primary Grade Water Flow Path Isolation Valves, Physics Tests Exceptions – Mode 2, Heat Flux Hot Channel Factor, Nuclear Enthalpy Rise Hot Channel Factor, Axial Flux Difference, Quadrant Power Tilt Ratio, RTS Instrumentation, ESFAS Instrumentation, Pam Instrumentation, Pressurizer Safety Valves, LTOP System, Accumulators, ECCS-Operating, Refueling Water Storage Tank, Containment Air Locks, Containment Isolation valves, Containment Pressure, Quench Spray System, Recirculation Spray System, Main Steam Safety Valves, Main Steam Trip valves, Auxiliary Feedwater System, Service Water System, MCR/ESGR Emergency Ventilation System, DC Sources – Operating, Inverters – Operating, and Primary Grade Water Flow Path Isolation Valves – Operating. Bases changes made since the Improved Technical Specification conversion have been previously submitted in letters dated August 20, 2002, May 9, 2003, and January 23, 2004.

The Bases changes to the Technical Specifications were reviewed and approved by the Station Nuclear Safety and Operating Committee. It was determined that these 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. These changes have been incorporated into the Bases. A summary of these changes is provided in Attachment 1.

Bases changes that were submitted to the NRC with license amendment requests pursuant to 10CFR50.90 are also being submitted for your information. These Bases changes were implemented with the associated license amendments. A summary of these changes is provided in Attachment 2. The current Bases to the Technical

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Specifications through Revision 14 are being provided in an electronic format in Attachment 3.

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

Sincerely,



L. N. Hartz
Vice President – Nuclear Engineering

Attachments

1. Summary of Bases Changes
2. Summary of Bases Changes Included With License Amendment Requests
3. Current Bases Through Revision 14 to Technical Specifications

Commitments made in this letter: None

cc: U. S. Nuclear Regulatory Commission
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ATTACHMENT 1

SUMMARY OF BASES CHANGES

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

Summary of Bases Changes
Not Included with License Amendment Requests

Removal of Topical Report Revision Number and Date of Issuance (Bases – 3.1.3, 3.1.9, 3.2.1, LCO 3.2.1, and 3.2.3)

These changes removed the dates and revision numbers associated with the Topical Reports referenced in the Bases that make use of the COLR. The NRC has agreed with this approach to cite the Topical Report by report number and title only (Ref: Technical Specification Task Force TSTF-363, "Revise Topical Report References in COLR"). These changes deleted reference to the specific date and revision number for VEP-FRD-42-A, "Reload Nuclear Design Methodology," in the References section of Bases for 3.1.3 and 3.1.9 and for VEP-NE-1-A, "VEPCO Relaxed Power Distribution Control Methodology and Associated FQ Surveillance Technical Specifications in the References section of Bases for 3.2.1 and 3.2.3.

Rod Drop Testing Fully Withdrawn Position Change from 229 Steps to 230 Steps (Bases SR 3.1.4.3)

This change allowed rod drop testing to be performed from the fully withdrawn position of 230 steps in lieu of 229 steps within the Bases for SR 3.1.4.3. This change was implemented to optimize the wear program on the RCCAs, and to comply with Westinghouse contract requirements and guidelines for RCCA rotation and axially repositioning.

Clarification of Note for the Performance of the Channel Operational Test (COT) on each Required PORV (Bases SR 3.4.12.7)

This change clarified the Note specified in SR 3.4.12.7 to permit the COT to be performed within 31 days prior to entering a condition in which the PORV is required. The change is consistent with the system design of the actuation circuitry that allows the LTOPS circuits to be tested in any Mode, and the ITS Technical Specification Task Force (TSTF) WOG-178 Rev 0, "Correct Bases for LTOP COT."

Elimination of Single Failure of SI Actuation Circuitry Requirements (Bases LCO 3.7.8)

This change eliminated the discussion in the Bases for LCO 3.7.8 paragraph "c" regarding protection for a single active failure of the actuation circuitry. The change was implemented upon modifications made to the service water pump start, service water pump manual trip block circuit, and spray array MOVs such that each component receives an additional same unit, opposite train SI signal. Each of these components now receive an SI signal from their respective train (existing), a second SI signal from the respective train, opposite unit (existing) and a third SI signal from the opposite

train, same unit (new). As the actuation of the SW pumps and spray array MOVs will no longer be susceptible to a single failure, the conditions within the Bases of LCO 3.7.8 for SW loop operability, which discussed protection for a single active failure of the actuation circuitry, have been eliminated.

Incorporation of Compensatory Measures Associated with the Revised Completion Time of Condition A for TS 3.8.7, Inverters - Operating (Bases – TS 3.8.7 Actions A.1)

This change added compensatory measures for entering a 7-day Completion Time of Required Action A.1 of TS 3.8.7, Inverters – Operating, for an inoperable inverter. Compensatory measures were incorporated based upon the commitment made to the NRC for entering the 7-day Completion Time of Required Action A.1 as documented in the NRC Safety Evaluation Report for License Amendments 235/217. The Compensatory Measures are: Entry into the extended Completion Time will not be planned concurrent with EDG maintenance, and will not be planned concurrent with planned maintenance on another RPS/ESFAS channel that results in the channel being in a tripped condition.

Post ITS Bases Administrative Changes and Editorial Corrections (Bases - See List below)

These changes incorporated minor, administrative or editorial corrections to the Bases that were identified during the development and implementation of the Improved Technical Specifications. These corrections to the Bases Sections identified below did not result in new requirements, change operational restrictions or limit operational flexibility:

- Bases:
- B 2.1.2, RCS Pressure Safety Limits
 - B 3.1.8, Primary Grade Water Flow Path Isolation Valves
 - B 3.3.1, RTS Instrumentation
 - B 3.3.2, ESFAS Instrumentation
 - B 3.3.3, PAM Instrumentation
 - B 3.4.10, RCS Pressurizer Safety Valves
 - B 3.5.1, ECCS Accumulators
 - B 3.6.2, Containment Air Locks
 - B 3.6.3, Containment Isolation Valves
 - B 3.7.1, Main Steam Safety Valves
 - B 3.7.2, Main Steam Trip Valves
 - B 3.7.10, MCR/ESGR/EVS MODES 1,2,3,4.
 - B 3.7.14, MCR/ESGR/EVS During Movement of Recently Irradiated Fuel Assemblies
 - B 3.8.4, DC Sources - Operating
 - B 3.9.2, Primary Grade Water Flow Path Isolation Valves – MODE - 6

ATTACHMENT 2

**SUMMARY OF BASES CHANGES
INCLUDED WITH LICENSE AMENDMENT REQUESTS**

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

**Summary of Bases Changes
Included With License Amendment Requests**

Use of Framatome ANP Advanced Mark-BW Fuel (Bases 2.1.1, 3.2.1, 3.2.2, 3.2.4, 3.5.1 and 3.5.2)

These changes provided supporting justification in the Bases 2.1.1, 3.2.1, 3.2.2, 3.2.4, 3.5.1, and 3.5.2 for changes to the Technical Specifications implemented by Amendments 237/216. The Amendments allowed the replacement of the existing Westinghouse fuel with Framatome ANP Advanced Mark-BW Fuel.

Deletion of Note Referring to Differences Between Unit 1 and Unit 2 Boron Concentrations (Bases SR 3.5.1.4, TS 3.5.4, SR 3.5.4.3, and SR 3.6.7.3)

These changes deleted the references in the Bases to the Note differentiating the boron concentration values between Unit 1 and Unit 2 for the safety injection accumulators, refueling water storage tank, and casing cooling tank. License Amendments 225/206 revised the boron concentration limits, which were implemented on a staggered basis during the refueling outages. A Note was added to SR 3.5.1.4, SR 3.5.4.3, and SR 3.6.7.3 during the transition to the Improved Technical Specifications to address the difference in boron concentrations until such time that changes for both units boron reduction programs were implemented. Amendment 218 for Unit 2 deleted the Note in Surveillance Requirements and associated Bases for 3.5.1.4, 3.5.4.3, and 3.6.7.3 that referred to the differences between Unit 1 and Unit 2 boron concentration limits.

One Time Extension of the Completion Time for the Low Head Safety Injection (LHSI) Train A (Bases 3.5.2 Action A.1)

This change implemented an Emergency Technical Specification change to specify in the Bases for 3.5.2 Action A.1 that a Note had been added in TS 3.5.2 (Action A.1) to permit a one-time extension of the completion time to 7 days to repair a leak that was discovered in the LHSI pump suction piping. This change was part of an emergency technical specification amendment request to allow additional time to repair the leak, and to prevent an unnecessary plant transient and unscheduled shutdown. The change was submitted to the NRC by letter dated July 23, 2004. Emergency License Amendment 236 was issued by the NRC on July 23, 2004.

Revised Containment Analysis (Bases 3.6.4 and 3.6.7)

These changes provided supporting justification in the Bases for 3.6.4 and 3.6.7 for changes made by Amendments 232/214. The Amendments revised the Containment Air Partial Pressure versus Service Water Temperature to establish a new operating domain for containment air partial pressure.

Quench Spray and Recirculation Spray Nozzles Surveillance Frequency (Bases SR 3.6.6.5 and 3.6.7.7)

These changes provided supporting justification in the Bases for SR 3.6.6.5 and SR 3.6.7.7 for changes made by Amendments 233/215. The Amendments revised the periodic testing Surveillance Requirement frequency of the Quench Spray and Recirculation Spray nozzles from once every 10 years to whenever maintenance is conducted that could result in nozzle blockage. The testing will be performed by an air or smoke flow test to verify that the spray nozzles are free of blockage.

ATTACHMENT 3

**CURRENT BASES THROUGH REVISION 14
TO TECHNICAL SPECIFICATIONS**

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