VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 2, 2015

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

Serial No. 15-474
NAPS/JHL 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 Specification 5.5.13.d, "Technical Specifications (TS) Bases Control Program," Dominion hereby submits the changes to the Bases of the Technical Specifications implemented during the period of October 1, 2014 through September 30, 2015. A summary of these changes is provided in Attachments 1 and 2. Enclosed is an electronic copy (CD) of the entire TS Bases through Revision 56 for your information.

Bases changes to the Technical Specifications that were not previously submitted to the NRC as part of a License Amendment Request were reviewed and approved by the Facility Safety Review 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 10CFR50.59. These changes have been incorporated into the TS Bases. A summary of these Bases changes is provided in Attachment 1.

TS Bases changes that were submitted to the NRC for information along with the associated License Amendment Request transmittals, submitted pursuant to 10CFR50.90, were also reviewed and approved by the Facility Safety Review Committee. These changes have been implemented with the respective License Amendments. A summary of these changes is provided in Attachment 2.

If you have any questions regarding this submittal, please contact Mr. Page Kemp at (540) 894-2295.

Sincerely,

L. A. Hilbert
Director, Nuclear Safety and Licensing

A001
NRR

Attachments
1. Summary of TS Bases Changes Not Previously Submitted to the NRC
2. Summary of TS Bases Changes Associated with License Amendments

Enclosure – CD of Current TS Bases (Revision 56)

Commitments made in this letter: None

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ATTACHMENT 1

SUMMARY OF TS BASES CHANGES NOT
PREVIOUSLY SUBMITTED TO THE NRC

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
NORTH ANNA POWER STATION UNITS 1 AND 2

SUMMARY OF TS BASES CHANGES NOT PREVIOUSLY SUBMITTED TO THE NRC

Revise the Bases of Technical Specification 3.8.1 to Reflect that Regulatory Guide 1.108 was Replaced by Regulatory Guide 1.9

The change revised the Bases of Technical Specification (TS) Surveillance Requirements (SR) 3.8.1, 3.8.1.10, 3.8.1.13, and 3.8.1.15 to reflect that Regulatory Guide 1.108 (Ref. 8) was subsequently replaced by Regulatory Guide 1.9. Regulatory Guide 1.9, Rev. 3, July 1993 was added as Reference 13. The proposed changes are to maintain the licensing basis current.

Revision of Technical Specification Bases Section 3.6.7.3

The Technical Specification (TS) Bases was previously revised as a result of Amendment 218. Amendment 218 deleted a Note from the TS Surveillance Requirement (SR) 3.6.7.3 regarding the old Casing Cooling Tank boron concentration limits of 2300 – 2400 ppm for North Anna Unit 2. This same note was not deleted from the equivalent Bases section.

Revision of Technical Specification Bases Section 3.3.3

The Bases of Technical Specification (TS) 3.3.3 was clarified regarding Containment Isolation Valves (CIVs) with two sets of indication in the Main Control Room (MCR).

Limiting Condition for Operation (LCO) 3.3.3 requires two operable channels for most Post Accident Monitoring (PAM) Instrumentation Functions. Two operable channels ensure no single failure prevents operators from getting the information necessary to determine the safety status of the unit, and to bring the unit to and maintain it in a safe condition following an accident. Furthermore, operability of two channels allows a channel check during the post accident phase to confirm the validity of displayed information.

The exception to the two channel requirement is CIV position. In this case, the important information is the status of the containment penetrations. Note (b) of the TS requires one position indicator for each penetration flow path with only one installed control room indication channel. This is sufficient to redundantly verify the isolation status of each isolable penetration either via indicated status of the active valve and prior knowledge of a passive valve, or via system boundary status. If a normally active CIV is known to be closed and deactivated, position indication is not needed to determine status. Therefore, the position indication for valves in this state is not required to be operable.

However, there is no specific guidance provided in the TS Bases for penetrations with one CIV that has two sets of indication in the control room. These CIVs do not fall under the same exception as the penetrations with one CIV with one set of indication.

Because the one CIV has two sets of indication, both sets of indication are required as per the two channel requirement of LCO 3.3.3. The Note (b) does not apply in this scenario. As such, additional wording was added to the Bases of TS 3.3.3 to clarify this fact and that both channels of indication for a single CIV are required to be operable.

Administrative Correction to the Bases of Technical Specification Surveillance Requirement 3.4.16.2 to Correct a Typographical Error

Technical Specification 3.4.16 is for Reactor Coolant System (RCS) Specific Activity. Surveillance Requirement 3.4.16.2 verifies reactor coolant dose equivalent Iodine-131 (I-131) specific activity is less than or equal to 1.0 microcurie per gram. The frequency of sampling is controlled by the Surveillance Frequency Control Program and when a thermal power change of greater than or equal to 15% rated thermal power (RTP) occurs within a 1 hour period. Following the latter, the sampling must occur between 2 and 6 hours after the power change. Sampling at other times would provide inaccurate results. Currently, the Bases states "samples at other times would provide accurate results." The word "accurate" was changed to "inaccurate." The wording correction was verified by consulting NUREG-1431.

ATTACHMENT 2

SUMMARY OF TS BASES CHANGES ASSOCIATED WITH LICENSE AMENDMENTS

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
NORTH ANNA POWER STATION UNITS 1 AND 2

SUMMARY OF TS BASES CHANGES ASSOCIATED WITH LICENSE AMENDMENTS

Modification of Control Bank Sequence and Overlap Technical Specification

The amendment revised Technical Specification 3.1.6, "Control Bank Insertion Limits," to include text, into Condition A stating, "for reasons other than Condition C". The TS change points to Condition C which, if applicable, allows the specified completion time to restore the control bank to within the insertion limit to be increased from 2 hours to 72 hours.

The TS Bases were revised to reflect the insertion of text into Condition A stating "for reasons other than Condition C". The discussion in the Bases of Condition C was revised to reflect that if Control Banks A, B, or C are inserted below the insertion limits or sequencing or overlap limits are not met, power operation may continue for up to 72 hours provided that the bank is not inserted more than 18 steps below the insertion limits, the control and shutdown rods are within the operability and rod group alignment requirements provided in Limiting Condition for Operation (LCO) 3.1.4, and the shutdown banks are within the insertion limits provided in LCO 3.1.5.

The Bases changes noted above were submitted to the NRC by Dominion submittal dated February 22, 2013 and incorporated into the Bases for North Anna Units 1 and 2 on October 7, 2014 upon NRC approval and implementation of the associated Technical Specification changes (Amendments 272 for Unit 1 and 254 for Unit 2 issued on August 27, 2014).

Alternate Rod Position Monitoring

The amendment revised Technical Specification 3.1.7, "Rod Position Indication," to include an additional monitoring option for an inoperable control rod position indicator. Specifically, the changes allow monitoring of control rod drive mechanism (CRDM) stationary gripper coil voltage every eight hours as an alternative to using the movable incore detectors every eight hours to verify control rod position.

The TS Bases were revised to reflect in the Limiting Condition for Operation (LCO) section that rod position indication for a single rod can be determined by measuring the CRDM stationary gripper coil voltage using a temporary recorder that provides alarm capability.

A discussion of a new Note for new Required Actions A.3.1 and A.3.2 was added to ensure that the alternate monitoring requirements are not used as a long term means of verifying rod position. The intended use of this alternate is to allow for monitoring until plant entry into a Mode 5 outage of sufficient duration and repair of the RPI can be safely performed. This ensures that at most, the alternate is used for 18 months or one operating cycle.

A discussion of new Required Action A.3.1 was provided. When one RPI fails, the position of the rod can still be determined by use of the movable incore detectors. Based on experience, normal power operation does not require excessive movement of banks. If a bank has been significantly moved, the Required Action of C.1 or C.2 below is required. Therefore, verification of control rod position within the Completion Time of 8 hours is adequate for allowing continued full power operation, since the probability of simultaneously having a rod significantly out of position and an event sensitive to that rod position is small. To provide verification of reliability of alternate monitoring, rod position will be verified by moveable incore detectors every 31 days. The 31-day frequency minimizes use of the movable incore monitoring system and can be performed concurrently with existing surveillance requirements for Hot Channel Factors.

A discussion of new Required Action A.3.2 was provided. Review of control rod primary coil stack voltage using the alternate monitoring method for indication of control rod movement for the rod with inoperable position indicator will be within 16 hours and then every 8 hours thereafter. Verification of control rod position within the Completion Time of 8 hours is adequate for allowing continued full power operation, since the probability of simultaneously having a rod significantly out of position and an event sensitive to that rod position is small. Should primary coil stack voltage of the control rod indicate movement, a determination of the control rod position will be made using the moveable incore detectors within 8 hours. To provide verification of reliability of alternate monitoring, rod position will be verified by moveable incore detectors every 31 days. The 31-day frequency minimizes use of the movable incore monitoring system and can be performed concurrently with existing surveillance requirements for Hot Channel Factors.

The Bases changes noted above were submitted to the NRC by Dominion submittal dated February 4, 2015 and incorporated into the Bases for North Anna Units 1 and 2 on May 21, 2015 upon NRC approval and implementation of the associated Technical Specification changes (Amendments 273 for Unit 1 and 255 for Unit 2 issued on May 14, 2015).