

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

December 16, 2009

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

Serial No. 09-784
NL&OS/ETS 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
LICENSE AMENDMENT REQUEST FOR ADOPTION OF TSTF-427, REV. 2
ADDITION OF LCO 3.0.9 FOR THE UNAVAILABILITY OF BARRIERS
USING THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS

Pursuant to 10 CFR 50.90, Dominion requests amendments in the form of changes to the Technical Specifications (TS) to Facility Operating License Numbers NPF-4 and NPF-7 for the North Anna Power Station Units 1 and 2, respectively. The proposed amendments will modify the requirements for unavailable barriers by adding a Limiting Condition for Operation 3.0.9 for North Anna Units 1 and 2. These changes are consistent with NRC approved Technical Specification Task Force (TSTF) Improved Standard Technical Specification Change Traveler, TSTF-427, Revision 2, "Allowance for Non Technical Specification Barrier Degradation on Supported System Operability."

Attachment 1 provides a description of the proposed changes. Attachment 2 provides the existing TS pages marked up to show the proposed changes and Attachment 3 provides the proposed TS changes in final typed format. Attachment 4 provides a summary of the regulatory commitments made in this submittal. Attachment 5 provides the associated Bases changes for your information.

The proposed changes have been reviewed by the Facility Safety Review Committee. Dominion requests approval of the proposed license amendments by December 31, 2010 with the amendments being implemented within sixty days of NRC issuance of the amendments.

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Attachment 1

Discussion of Changes

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

DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

Virginia Electric and Power Company (Dominion) is proposing amendments to the North Anna Units 1 and 2 Technical Specifications (TS) that would modify the requirements for unavailable barriers by adding a Specification/Limiting Condition for Operation (LCO). The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) STS change TSTF-427, Revision 2. The availability of this TS improvement was published in the Federal Register on October 3, 2006 (Federal Register 71 58444) as part of the consolidated line item improvement process (CLIP).

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

Dominion has reviewed the safety evaluation in Federal Register notice, dated October 3, 2006, as part of the CLIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-427, Revision 2. Dominion has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to North Anna Units 1 and 2 and justify this amendment for the incorporation of the changes to the North Anna Units 1 and 2 Technical Specifications.

2.2 Optional Changes and Variations

Dominion is not proposing any variations or deviations from the Technical Specifications changes described in the TSTF-427, Revision 2 or the NRC staff's model safety evaluation dated June 2, 2006.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

Dominion has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIP. Dominion has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to North Anna Units 1 and 2 and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

As discussed in the notice of availability published in the Federal Register on October 3, 2006 for this Technical Specification improvement, plant-specific verifications were performed as follows:

1. Dominion commits to the guidance of NUMARC 93-01 Section 11, which provides guidance and details on the assessment and management of risk during maintenance.
2. Dominion will revise procedures to ensure that the risk assessment and management process described in NEI 04-08 are used whenever a barrier is considered unavailable and the requirements of the LCO are to be applied, in accordance with an overall configuration risk management program to ensure that potentially risk-significant configurations resulting from maintenance and other operational activities are identified and managed (i.e., avoid risk-significant configurations).
3. Dominion has a Technical Specifications Bases Control Program, consistent with the Technical Specification Bases Control Program described in Section 5.5 of the Westinghouse Standard TS (NUREG-1431).

4.0 ENVIRONMENTAL EVALUATION

Dominion has reviewed the environmental evaluation included in the model safety evaluation dated October 3, 2006 as part of the CLIP. Dominion has concluded that the staff's findings presented in that evaluation are applicable to North Anna and the evaluation is hereby incorporated by reference for this application.

Attachment 2

Marked-up Technical Specification Pages

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

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2, LCO 3.0.7, and LCO 3.0.8, and LCO 3.0.9.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 4 within 13 hours; and
- c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specific condition in the Applicability for an unlimited period of time,

(continued)

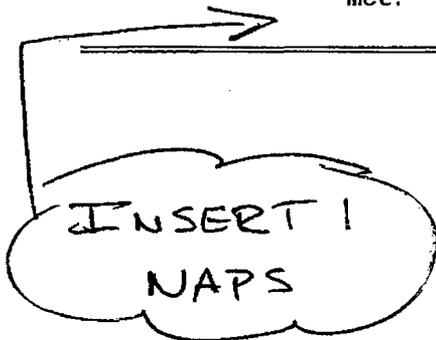
3.0 LCO APPLICABILITY

LCO 3.0.7 Test Exception LCOs 3.1.9 and 3.4.19 allow specified Technical Specification (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Test Exception LCOs is optional. When a Test Exception LCO is desired to be met but is not met, the ACTIONS of the Test Exception LCO shall be met. When a Test Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications.

LCO 3.0.8 When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.



INSERT 1 - NAPS

LCO 3.0.9 When one or more required barriers are unable to perform their related support function(s), any supported system LCO(s) are not required to be declared not met solely for this reason for up to 30 days provided that at least one train or subsystem of the supported system is OPERABLE and supported by barriers capable of providing their related support function(s), and risk is assessed and managed. This specification may be concurrently applied to more than one train or subsystem of a multiple train or subsystem supported system provided at least one train or subsystem of the supported system is OPERABLE and the barriers supporting each of these trains or subsystems provide their related support function(s) for different categories of initiating events.

If the required OPERABLE train or subsystem becomes inoperable while this specification is in use, it must be restored to OPERABLE status within 24 hours or the provisions of this specification cannot be applied to the trains or subsystems supported by the barriers that cannot perform their related support function(s).

At the end of the specified period, the required barriers must be able to perform their related support function(s) or the supported system LCO(s) shall be declared not met.

Attachment 3

Proposed Technical Specification Pages

**North Anna Power Station
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3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 4 within 13 hours; and
- c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specific condition in the Applicability for an unlimited period of time,

(continued)

3.0 LCO APPLICABILITY

LCO 3.0.7 Test Exception LCOs 3.1.9 and 3.4.19 allow specified Technical Specification (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Test Exception LCOs is optional. When a Test Exception LCO is desired to be met but is not met, the ACTIONS of the Test Exception LCO shall be met. When a Test Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications.

LCO 3.0.8 When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

LCO 3.0.9 When one or more required barriers are unable to perform their related support function(s), any supported system LCO(s) are not required to be declared not met solely for this reason for up to 30 days provided that at least one train or subsystem of the supported system is OPERABLE and supported by barriers capable of providing their related support function(s), and risk is assessed and managed.

(continued)

LCO 3.0.9
(continued)

This specification may be concurrently applied to more than one train or subsystem of a multiple train or subsystem supported system provided at least one train or subsystem of the supported system is OPERABLE and the barriers supporting each of these trains or subsystems provide their related support function(s) for different categories of initiating events.

If the required OPERABLE train or subsystem becomes inoperable while this specification is in use, it must be restored to OPERABLE status within 24 hours or the provisions of this specification cannot be applied to the trains or subsystems supported by the barriers that cannot perform their related support function(s).

At the end of the specified period, the required barriers must be able to perform their related support function(s). or the supported system LCO(s) shall be declared not met.

3.0 SR APPLICABILITY

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits. Surveillances may be performed by any series of sequential, overlapping, or total steps.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

(continued)

3.0 SR APPLICABILITY

SR 3.0.3
(continued) When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency. When an LCO is not met, entry into a MODE or other specific condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specific condition in the Applicability for an unlimited period of time,
- b. After performance of a risk evaluation, consideration of the results, determination of the acceptability of the MODE change, and establishment of risk management actions, if appropriate, or
- c. When a specific value or parameter allowance has been approved by the NRC.

This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3 and 4.

Attachment 4

Regulatory Commitments

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

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Dominion in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

REGULATORY COMMITMENTS	DUE DATE/EVENT
Dominion commits to the guidance of NUMARC 93-01, Revision 2, Section 11, which provides guidance and details on the assessment and management of risk during maintenance.	Implement with amendment
Dominion commits to the guidance of NEI 04-08, "Allowance for Non-Technical Specification Barrier Degradation on Supported System OPERABILITY (TSTF-427) Industry Implementation Guidance," March 2006.	Implement with amendment

Attachment 5

Marked-up Technical Specification Bases Changes
(information only)

**North Anna Power Station
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BASES

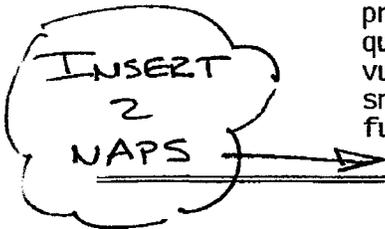
LCO 3.0.8
(continued)

LCO 3.0.8.b applies when one or more snubbers are not capable of providing their associated support function(s) to more than one train or subsystem of a multiple train or subsystem supported system. LCO 3.0.8.b allows 12 hours to restore the snubber(s) before declaring the supported system inoperable. The 12 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function.

In order to use LCO 3.0.8 for an inoperable snubber(s) the following conditions required by the NRC must be satisfied:

- At least one AFW train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s), must be OPERABLE when LCO 3.0.8.a is used.
- At least one AFW train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s) must be OPERABLE, or some alternative means of core cooling (e.g., feed and bleed, fire water system, or "aggressive secondary cooldown" using the steam generators) must be available when LCO 3.0.8.b is used.
- Confirm that at least one train (or subsystem) of systems supported by the inoperable snubbers would remain capable of performing their required safety or support functions for postulated design loads other than seismic loads. LCO 3.0.8 does not apply to non-seismic snubbers.

In addition, LCO 3.0.8 requires that risk be assessed and managed. Industry and NRC guidance on the implementation of 10 CFR 50.65(a)(4) (the Maintenance Rule) does not address seismic risk. However, use of LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but may be a qualitative awareness of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function.



INSERT 2 - NAPS

LCO 3.0.9 LCO 3.0.9 establishes conditions under which systems described in the Technical Specifications are considered to remain OPERABLE when required barriers are not capable of providing their related support function(s).

Barriers are doors, walls, floor plugs, curbs, hatches, installed structures or components, or other devices, not explicitly described in Technical Specifications, that support the performance of the safety function of systems described in the Technical Specifications. This LCO states that the supported system is not considered to be inoperable solely due to required barriers not capable of performing their related support function(s) under the described conditions. LCO 3.0.9 allows 30 days before declaring the supported system(s) inoperable and the LCO(s) associated with the supported system(s) not met. A maximum time is placed on each use of this allowance to ensure that as required barriers are found or are otherwise made unavailable, they are restored. However, the allowable duration may be less than the specified maximum time based on the risk assessment.

If the allowed time expires and the barriers are unable to perform their related support function(s), the supported system's LCO(s) must be declared not met and the Conditions and Required Actions entered in accordance with LCO 3.0.2.

This provision can be applied to barriers that protect against the initiating events listed below. The provision can not be applied to TS ventilation systems since specific Conditions are provided for an inoperable barrier. The provision cannot be applied to a fire barrier. However, if the barrier performs multiple functions (e.g., fire and HELB) and if the fire barrier program requirements can be satisfied then LCO 3.0.9 can be applied to the barrier for the HELB function. This provision does not apply to barriers which are not required to support system Operability (see NRC Regulatory Issue Summary 2001-09, Control of Hazard Barriers, dated April 2, 2001).

The provisions of LCO 3.0.9 are justified because of the low risk associated with required barriers not being capable of performing their related support function. This provision is based on consideration of the following initiating event categories:

- Loss of coolant accidents;
- High energy line breaks;
- Feedwater line breaks;
- Internal flooding;
- External flooding;

- Turbine missile ejection; and
- Tornado or high wind.

The risk impact of the barriers which cannot perform their related support function(s) must be addressed pursuant to the risk assessment and management provision of the Maintenance Rule, 10 CFR 50.65 (a)(4), and the associated implementation guidance, Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." This guidance provides for the consideration of dynamic plant configuration issues, emergent conditions, and other aspects pertinent to plant operation with the barriers unable to perform their related support function(s). These considerations may result in risk management and other compensatory actions being required during the period that barriers are unable to perform their related support function(s).

The resultant risk management actions may impose time limits for barrier removal. In addition, other considerations, such as the administrative provisions for controlling fire barriers and the plant technical specifications, may place limitations on continued reactor operation with a hazard barrier removed. It may be possible to take compensatory measures to maintain SSC operability and avoid entering the technical specifications action statement for shutting down the reactor (e.g., installing a temporary barrier that provides equivalent protection or establishing administrative controls). Also, if the hazard does not exist at the time, the SSC would remain operable.

Specification 3.0.9 may be applied to one or more trains or subsystems of a system supported by barriers that cannot provide their related support function(s), provided that risk is assessed and managed (including consideration of the effects on Large Early Release and from external events). Specification 3.0.9 cannot be applied concurrently to more than one train or subsystem of a multiple train or subsystem supported system, if the barrier supporting each of these trains or subsystems provides its related support function(s) for same category of initiating events. If applied concurrently to more than one train or subsystem of a multiple train or subsystem supported system, the barriers supporting each of these trains or subsystems must provide their related support function(s) for different categories of initiating events. For example, Specification 3.0.9 may be applied for up to 30 days for more than one train of a multiple train supported system if the affected barrier for one train protects against internal flooding and the affected barrier for the other train protects against tornado missiles. In this example, the affected barrier may be the

same physical barrier but serve different protection functions for each train.

If during the time that LCO 3.0.9 is being used, the required OPERABLE train or subsystem becomes inoperable, it must be restored to OPERABLE status within 24 hours. Otherwise, the train(s) or subsystem(s) supported by barriers that cannot perform their related support function(s) must be declared inoperable and the associated LCOs declared not met. This 24 hour period provides time to respond to emergent conditions that would otherwise likely lead to entry into LCO 3.0.3 and a rapid plant shutdown, which is not justified given the low probability of an initiating event which would require the barrier(s) not capable of performing their related support function(s). During this 24 hour period, the plant risk associated with the existing conditions is assessed and managed in accordance with 10 CFR 50.65(a)(4).