

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 28, 2007

10CFR50.90

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

Serial No. 07-0109E
SPS-LIC/CGL R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
PROPOSED ADDITIONAL TECHNICAL SPECIFICATIONS CHANGE
OPERABLE DEFINITION MODIFICATION FOR AIR HANDLING UNITS
WHILE IN TEMPORARY 45-DAY ALLOWED OUTAGE TIMES
TO PERFORM REQUIRED SURVEILLANCES

In a letter dated September 25, 2007 (Serial No. 07-0109D), Virginia Electric and Power Company (Dominion) requested amendments, in the form of changes to the Technical Specifications (TS) to Facility Operating License Numbers DPR-32 and DPR-37 for Surry Power Station Units 1 and 2, respectively. The proposed TS change requested modification of the operability requirements associated with the normal and emergency power sources for the Main Control Room (MCR) and Emergency Switchgear Room (ESGR) Air Conditioning System (ACS) air handling units (AHUs). The modified operability definition is necessary to address certain conditions during replacement of MCR and ESGR ACS chilled water piping. [The MCR and ESGR ACS chilled water piping replacement, including the need for temporary 45-day and 14-day allowed outage times (AOTs), is discussed in Dominion's February 26, 2007 letter (Serial No. 07-0109).] In the September 25, 2007 letter, Dominion requested a modified operability definition to be applied for the AHUs on the operating chilled water loop while in the temporary 45-day AOTs for the performance of certain TS-required surveillance testing, as well as the completion of related emergent emergency diesel generator (EDG) corrective maintenance, if required.

On October 12, 2007, the NRC provided comments to Dominion regarding the proposed modified operability definition in the September 25, 2007 letter. The NRC comments were discussed during an October 31, 2007 conference call. At the conclusion of the conference call, Dominion agreed to formally address the NRC staff's comments and to revise the September 25, 2007 TS change request. Attachment 1 provides the Dominion responses to the NRC comments. Attachment 2 provides a discussion of the revised TS change, which deletes the application of the modified operability definition to allow completion of related EDG corrective maintenance. The marked-up and proposed TS pages reflecting the revised proposed additional TS change are provided in Attachments 3 and 4, respectively. This transmittal supersedes our September 25, 2007 letter in its entirety.

The September 25, 2007 letter also included an NRC request to revise the footnote to TS 3.23 that was included in the February 26, 2007 proposed TS change request. This

Attachments:

1. Response to NRC Comments on September 25, 2007 Proposed TS Change
2. Discussion of Change
3. Marked-up Technical Specifications Pages
4. Proposed Technical Specifications Pages

Commitments made in this letter: None.

cc: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Suite 23 T85
Atlanta, Georgia 30303

State Health Commissioner
Virginia Department of Health
James Madison Building – 7th Floor
109 Governor Street
Room 730
Richmond, Virginia 23219

Mr. S. P. Lingam
NRC Project Manager – Surry
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8G9A
Rockville, Maryland 20852

Mr. R. A. Jervey
NRC Project Manager – North Anna
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8G9A
Rockville, Maryland 20852

Mr. C. R. Welch
NRC Senior Resident Inspector
Surry Power Station

Attachment 1

**Response to NRC Comments on September 25, 2007 Proposed TS Change -
Operable Definition Modification for Air Handling Units
While in Temporary 45-day Allowed Outage Times**

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

**Response to NRC Comments on September 25, 2007 Proposed TS Change -
Operable Definition Modification for Air Handling Units
While in Temporary 45-day Allowed Outage Times**

NRC Comment 1:

EEEB would find it acceptable to allow Surry to change the operability to allow only the offsite power source during monthly surveillance testing of the associated EDG, while not considering the chiller to be inoperable. However, if the associated EDG fails the monthly surveillance test then the chiller would be considered inoperable and the plant shutdown per their technical specifications associated with the chillers.

Dominion Response:

The proposed TS change request transmitted to the NRC by our September 25, 2007 letter (Serial No. 07-0109D), modified the definition of OPERABLE for the normal and emergency power sources for the air handling units (AHUs) to perform TS-required surveillances that render an EDG inoperable and to complete any related emergent EDG corrective maintenance within the TS 3.16.B.1 allowed outage time. As noted in the NRC Comment 1, the NRC has indicated that application of the modified definition is acceptable to perform the required surveillances, but is not acceptable to complete any emergent EDG corrective maintenance. Furthermore, the NRC has also indicated that, in the event that emergent EDG corrective maintenance is identified during a required surveillance, the affected AHUs will be declared inoperable due to the inoperability of their emergency power source, and the applicable AHU TS actions will be taken. Consistent with this NRC feedback, the proposed TS change in our September 25, 2007 letter (Serial No. 07-0109D) is being revised in this transmittal as follows:

“For the purpose of performing Technical Specification-required surveillances that render an emergency diesel generator inoperable, ~~and completing any related emergent corrective maintenance within the TS 3.16.B.1 allowed outage time,~~ the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source to be capable of performing its related support function. This footnote shall only apply during the temporary 45-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping.”

Procedures being developed for implementation of the chilled water piping replacement project will include direction that, in the event that emergent EDG corrective maintenance is identified during a required surveillance, the affected AHUs will be declared inoperable due to the inoperability of their emergency power source, and the applicable AHU TS actions will be taken.

NRC Comment 2:

We also need to know what happens if an actual start signal such as a LOOP or SI signal is received during the test, when the auto start circuit is bypassed. If the actions are procedurally driven are the operators trained on this issue, such as performing JPMs on this scenario.

Dominion Response:

The Operations Periodic Test Procedures used to perform the monthly and the combined monthly/quarterly EDG surveillances include an attachment, titled EDG Contingency Actions. The procedures direct that, during the performance of the testing, the EDG Contingency Actions must be performed if the EDG is required to function as sole supply of the Emergency Bus. Thus, the necessary actions to be taken if a start signal is received during the surveillance testing are proceduralized. These Operations Periodic Test Procedures, including the contingency actions, are included in the Training Department's Job Performance Measures (JPM) Program.

In addition, the pre-job brief that is conducted prior to performance of the EDG monthly and combined monthly/quarterly surveillances includes review of the Operations Periodic Test Procedures, including the contingency actions.

Attachment 2

Discussion of Change

**Operable Definition Modification for Air Handling Units
While in Temporary 45-day Allowed Outage Times
to Perform Required Surveillances**

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

DISCUSSION OF CHANGE

1.0 Introduction

Letter Serial No. 07-0109, dated February 26, 2007, transmitted proposed Technical Specifications (TS) revisions regarding the use of temporary 45-day and 14-day allowed outage times (AOTs) to permit the replacement of Main Control Room (MCR) and Emergency Switchgear Room (ESGR) Air Conditioning System (ACS) chilled water piping. During the activities to prepare for implementation of the chilled water piping replacement project and TS change, it was recognized that, during specific TS-required surveillance testing, resultant inoperability of the air handling units (AHUs) on the operating chilled water loop will require entry into an action statement to restore AHU operability within one hour or bring the unit to HOT SHUTDOWN (HSD) conditions within the next 6 hours and be in COLD SHUTDOWN (CSD) in the following 30 hours. Therefore, an additional TS change is requested to modify the operability requirements associated with the normal and emergency power sources for the AHUs on the operating chilled water loop while in the temporary 45-day AOTs to perform specific TS-required surveillance testing. This modified TS 1.0.D definition of OPERABLE will eliminate the need to enter the action statement to restore AHU operability or bring the unit to HSD/CSD conditions.

In addition, the NRC requested that Dominion revise the footnote to TS 3.23 in the February 26, 2007 proposed TS change request. Specifically, it was requested that the phrase "with an average planned out-of-service time of 90 days per 12-month period" be deleted from the footnote. This same phrase is also included in and is being deleted from the proposed TS 3.23 Basis change in the February 26, 2007 letter. The proposed revision to the TS 3.23 Basis change is included for the NRC's information.

The proposed additional TS change has been reviewed, and it has been determined that the change has no adverse safety impact. Furthermore, the no significant hazards determination and the environmental assessment included in the February 26, 2007 letter both remain applicable with respect to the proposed additional TS change.

2.0 Discussion of Change

As noted above, the Surry TS change request associated with the MCR and ESGR ACS chilled water piping replacement, which was transmitted by our February 26, 2007 letter, permits the use of temporary 45-day and 14-day AOTs to facilitate the piping replacement. That TS change request included a supporting probabilistic risk assessment (PRA) analysis with Tier 2 Equipment Unavailability Restrictions for Units 1 and 2. Emergency diesel generators (EDGs) 1, 2, and 3 were included in the restriction list with a Note that states: "Required surveillance testing and preventive maintenance will be performed. Surveillance testing and preventive maintenance scheduled during the temporary AOTs will be evaluated with respect to being rescheduled outside the AOTs. . . . Elective maintenance will not be performed,"

During the activities to prepare for implementation of the chilled water piping replacement project and the TS change, it was recognized that, when one of the chilled water loops is out of service for replacement and during the TS-required surveillances that render an EDG inoperable, TS action statement entry for AHU inoperability on the operating chilled water loop also results, due to inoperability of the AHU's emergency power source. This is because the Surry TS 1.0.D definition of OPERABLE requires that both the normal **and** emergency electrical power sources be capable of performing their related support functions. In addition, because the redundant AHUs on the out of service loop are inoperable due the replacement of that loop, the provisions of TS 3.0.2 cannot be used. When a component is determined to be inoperable solely because either its emergency **or** normal power source is inoperable, TS 3.0.2 allows the component to be considered OPERABLE provided its corresponding normal or emergency power source is OPERABLE and its redundant component(s) is OPERABLE. Figure 2 from Attachment 4 in the February 26, 2007 letter is included for reference (at the end of this attachment); this figure illustrates AHU location in each chilled water loop and emergency power source (identified in parentheses). Since no provision was included in the chilled water piping replacement TS change to address the impact of the TS-required surveillances rendering an EDG inoperable during the piping replacement AOTs, the resultant AHU inoperability and the applicable TS requirements are as follows:

- With Chilled Water Loop A out of service for replacement (1-VS-AC-1, 1-VS-AC-7, 2-VS-AC-7, and 2-VS-AC-9 inoperable):
 - ✓ EDG 1 (1H) surveillance - no additional AHU inoperability and no AHU TS action statement entry required
 - ✓ EDG 2 (2H) surveillance - 2-VS-AC-6 and 2-VS-AC-8 inoperable; TS 3.23.C.2.c.1 entry required on Units 1 and 2
 - ✓ EDG 3 (1J/2J) surveillance - 1-VS-AC-2 and 1-VS-AC-6 inoperable; TS 3.23.C.2.a.4 entry required on Unit 1
- With Chilled Water Loop C out of service for replacement (1-VS-AC-2, 1-VS-AC-6, 2-VS-AC-6, and 2-VS-AC-8 inoperable):
 - ✓ EDG 1 (1H) surveillance - 1-VS-AC-1 and 1-VS-AC-7 inoperable; TS 3.23.C.2.c.1 entry required on Units 1 and 2
 - ✓ EDG 2 (2H) surveillance - no additional AHU inoperability and no AHU TS action statement entry required
 - ✓ EDG 3 (1J/2J) surveillance - 2-VS-AC-7 and 2-VS-AC-9 inoperable; TS 3.23.C.2.b.4 entry required on Unit 2

The referenced TS requirements are as follows:

- With more than two Unit 1 or Unit 2 AHUs inoperable, TS 3.23.C.2.a.4 and TS 3.23.C.2.b.4 require restoration of operability of at least one AHU in each air conditioning zone on the respective unit within 1 hour or bring the unit to HSD within the next 6 hours and be in CSD in the following 30 hours.
- Whenever both units are above CSD, with one or two AHUs on each unit powered from an H bus inoperable, TS 3.23.C.2.c.1 requires restoration of operability of the inoperable AHU(s) on one unit within 1 hour or bring both units to HSD within the next 6 hours and be in CSD in the following 30 hours.

As noted above, the chilled water piping replacement TS change request indicated that surveillance testing scheduled during the temporary AOTs will be evaluated with respect to being rescheduled outside the AOTs. The preparation effort of the chilled water piping replacement TS change request included an evaluation of surveillances. However, during the implementation planning activities for the chilled water piping replacement, it was recognized that certain monthly and combined monthly/quarterly surveillances will need to be performed during the temporary 45-day AOTs. These certain surveillances render an EDG inoperable and, in turn, result in AHU inoperability. The surveillances of concern are monthly EDG surveillances (that render an EDG inoperable for 3 to 4 hours), monthly Consequence Limiting Safeguards (CLS) logic surveillances (that render the EDG 3 inoperable for less than one hour), and combined monthly/quarterly EDG surveillances (that render an EDG inoperable for 5 to 6 hours). The identified time periods of EDG inoperability for these surveillances are worst case times. The following surveillances that render an EDG inoperable will be conducted during Phase III of the piping replacement (chilled water loop C out of service for replacement); the associated AHU TS action statement entry is also identified:

- ✓ Two EDG 1 monthly surveillances – AHU TS action statement on Units 1 and 2
- ✓ Two EDG 2 monthly surveillances – no AHU TS action statement on either unit
- ✓ EDG 3 monthly surveillance – AHU TS action statement on Unit 2
- ✓ Two Unit 1 CLS logic monthly surveillances - AHU TS action statement on Unit 2
- ✓ Unit 2 CLS logic monthly surveillance – AHU TS action statement on Unit 2

The surveillances that will be conducted and the associated AHU TS action statement entry during Phase IV (chilled water loop A out of service for replacement) are:

- ✓ EDG 1 monthly surveillance – no AHU TS action statement on either unit
- ✓ EDG 1 monthly/quarterly surveillance – no AHU TS action statement on either unit
- ✓ EDG 2 monthly surveillance – AHU TS action statement on Units 1 and 2
- ✓ EDG 3 monthly surveillance – AHU TS action statement on Unit 1
- ✓ EDG 3 monthly/quarterly surveillance – AHU TS action statement on Unit 1
- ✓ Unit 1 CLS logic monthly surveillance – AHU TS action statement on Unit 1
- ✓ Two Unit 2 CLS logic monthly surveillances – AHU TS action statement on Unit 1

The need to perform the monthly and combined monthly/quarterly surveillances listed above during the temporary 45-day AOTs is based on the current chilled water piping replacement project schedule.

An additional revision to the chilled water piping replacement TS change request is proposed to address the AHU TS action statement entry. The proposed additional TS revision is a footnote modifying the TS 1.0.D definition of OPERABLE as it applies to the AHUs under these specific conditions. The proposed footnote will state: “For the purpose of performing Technical Specification-required surveillances that render an emergency diesel generator inoperable, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source to be capable of performing its related support function. This footnote shall only apply during the temporary 45-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air

Conditioning System chilled water piping.” This proposed modification of the definition of OPERABLE will allow the AHUs to not be declared inoperable due to EDG inoperability during performance of TS-required surveillances and, thus, will eliminate the need to enter TS 3.23.C.2.a.4, TS 3.23.C.2.b.4, and TS 3.23.C.2.c.1.

The proposed additional TS revision is acceptable for the following reasons:

- ✓ The modified OPERABLE definition for the AHUs will be applied for a very short duration during each of the two temporary 45-day AOTs. During Phase III, the duration of EDG inoperability (i.e., planned unavailability to perform TS-required surveillances) will be approximately 15 hours. Similarly during Phase IV, the duration will be approximately 17 hours.
- ✓ As indicated in the February 26, 2007 letter, which transmitted the chilled water piping replacement TS change, while two AHUs per unit on a chilled water loop are out of service during the replacement activities, the two AHUs per unit on the operating chilled water loop will be identified as protected equipment in accordance with the Operations Department’s Protected Equipment Program. This Program was discussed in the February 26, 2007 letter.
- ✓ Also as indicated in the February 26, 2007 letter, actions will be taken to provide a high level of confidence that AHU operability will be maintained. Specifically, it will be verified that there is no outstanding required maintenance on the MCR and ESGR ACS AHUs that could affect operability. Additionally, availability of AHU spare parts (i.e., routine stock items) will be confirmed.
- ✓ During the monthly and quarterly EDG surveillances conducted during the temporary 45-day AOTs, the other EDGs that are not rendered inoperable by the surveillance testing will be identified as protected equipment in accordance with the Operations Department’s Protected Equipment Program.
- ✓ Consistent with the current work planning practice regarding switchyard control, switchyard work will be coordinated with plant work, unit conditions, and testing activities such that an unnecessary risk to the station is not created. Furthermore, switchyard activities that could potentially affect the availability of the offsite power supply will be prohibited during TS-required surveillances that render an EDG inoperable conducted during the temporary 45-day AOTs.
- ✓ In the event that related emergent EDG corrective maintenance is identified during a required surveillance, the affected AHUs will be declared inoperable due to inoperability of their emergency power source, and the applicable TS 3.23.C.2.a.4, TS 3.23.C.2.b.4, or TS 3.23.C.2.c.1 actions will be taken.
- ✓ The supporting PRA analysis for the chilled water replacement TS change included in letter Serial No. 07-0109, as well as the PRA information in the associated RAI responses (References 2, 3 and 4), has been reviewed with respect to this proposed additional TS revision. It has been determined that the supporting PRA analysis and the RAI responses remain applicable and bounding, and the risk was found to be acceptably small.

In addition, the NRC requested that Dominion make a minor revision to the footnote to TS 3.23 in the February 26, 2007 proposed TS change request. Specifically, it was requested that the phrase “with an average planned out-of-service time of 90 days per

12-month period” be deleted from the footnote. An associated revision to the TS 3.23 Basis change in the February 26, 2007 letter is also needed to delete the same phrase.

3.0 Specific Revisions

The chilled water piping replacement TS change request in the February 26, 2007 letter included the following Operating License (OL) Condition Item Q for each unit:

Q. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee’s submittal dated February 26, 2007 (Serial No. 07-0109).

Subsequently, the Units 1 and 2 OLs were revised to include an OL Condition Q titled Mitigation Strategy. *Thus, the OL Condition Q in the February 26, 2007 letter is renumbered as OL Condition R and is revised to include the following italicized text:*

R. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee’s submittal dated February 26, 2007 (Serial No. 07-0109) *and in the associated supplemental transmittals. As discussed in the footnote to the Technical Specification 1.0.D definition of OPERABLE, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source during the temporary 45-day allowed outage times, as discussed in the licensee’s submittal dated November 28, 2007 (Serial No. 07-0109E).*

NOTE: The associated supplemental transmittals referred to by the phrase “and in the associated supplemental transmittals” added in the Operating License Condition R for each unit are References 2 through 7, as well as this transmittal.

The TS 1.0.D definition of OPERABLE is:

A system, subsystem, train, component, or device shall be operable or have operability when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, train, component, or device to perform its function(s) are also capable of performing their related support function(s). . . .

The TS 1.0.D definition of OPERABLE is modified by adding an asterisk in the phrase normal and emergency electrical power sources with the following footnote:*

- * *For the purpose of performing Technical Specification-required surveillances that render an emergency diesel generator inoperable, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source to be capable of performing its related support function. This footnote shall only apply during the temporary 45-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping.*

The chilled water piping replacement TS change request in the February 26, 2007 letter included the following footnote to TSs 3.23.C.2.a.1 and 3.23.C.2.b.1. *In response to the NRC request that Dominion revise the footnote to delete the phrase “with an average planned out-of-service time of 90 days per 12-month period”, this phrase is being deleted from the footnote, as noted below.*

- * For the purpose of replacing Main Control Room (MCR) and Emergency Switchgear Room (ESGR) Air Conditioning System chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided. The basis for and the risk evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee’s submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span ~~with an average planned out-of-service time of 90 days per 12-month period~~. The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in the Mechanical Equipment Room #3 (MER-3) associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, this footnote is no longer applicable.

The chilled water piping replacement TS change request also included the following paragraph being added to the TS 3.23 Basis. *Consistent with the NRC-requested footnote revision, the phrase “with an average planned out-of-service time of 90 days per 12-month period” is also being deleted from the TS Basis revision, as noted below.*

The exterior surface of the MCR and ESGR ACS chilled water piping located in the ESGR, the MCR, and MER-3 is exhibiting general corrosion. For the purpose of replacing the MCR and ESGR ACS chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided, as discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1. The basis for and the risk

evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span ~~with an average planned out-of-service time of 90 days per 12-month period~~. The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in MER-3 associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, the footnote is no longer applicable.

4.0 No Significant Hazards Consideration

The no significant hazards determination included in the February 26, 2007 letter for the chilled water piping replacement TS change request stated the following:

1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change has been evaluated using the risk-informed processes described in Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," and RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decision Making: Technical Specifications." The risk associated with the proposed change was found to be acceptably "small" and therefore not a significant increase in the probability and consequences of an accident previously evaluated.

In addition, the proposed change does not affect the initiators of analyzed events or the assumed mitigation of accident or transient events. During the temporary 45-day and 14-day AOT entries, equipment availability restrictions will restrict or limit the out-of-service time of risk significant plant equipment due to surveillance testing, preventive maintenance, and elective maintenance. In addition, during the replacement activities, compensatory actions will be in place to ensure the availability of chilled water or to provide backup cooling. Therefore, the ACS will continue to perform its required function. As a result, the proposed change to the Surry TS does not involve any significant increase in the probability or the consequences of any accident or malfunction of equipment important to safety previously evaluated since neither accident probabilities nor consequences are being affected by this proposed change.

2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change does not involve a change in the methods used to respond to plant transients. There is no alteration to the parameters within which the plant is

normally operated or in the setpoints, which initiate protective or mitigative actions. The MCR and ESGR ACS will continue to perform its required function. This is assured by the planned implementation of compensatory actions, including provisions for backup cooling. Consequently, no new failure modes are introduced by the proposed change. Therefore, the proposed Surry TS change does not create the possibility of a new or different kind of accident or malfunction of equipment important to safety from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Margin of safety is established through the design of the plant structures, systems, and components, the parameters within which the plant is operated, and the establishment of the setpoints for the actuation of equipment relied upon to respond to an accident or transient event. The proposed change does not affect the ability of the MCR and ESGR ACS to perform its required function. This is assured by the planned implementation of compensatory actions, including provisions for backup cooling. Furthermore, the proposed change has been evaluated using the risk-informed processes described in Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," and RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decision Making: Technical Specifications." The risk associated with the proposed change was found to be acceptably small. Therefore, the proposed change to the Surry TS does not involve a significant reduction in a margin of safety.

The February 26, 2007 determination concluded that a significant hazards consideration does not exist with respect to the chilled water piping replacement TS change. The no significant hazards determination included in the February 26, 2007 letter has been reviewed with respect to this proposed additional TS revision, and it has been concluded that it remains applicable.

5.0 Environmental Assessment

The environmental assessment included in the February 26, 2007 letter for the chilled water piping replacement TS change stated the following, and the amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) as follows:

- (i) The amendment involves no significant hazards consideration.

As described above, the proposed additional TS change does not involve a significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed additional TS change does not involve the installation of any new

equipment or the modification of any equipment that may affect the types or amounts of effluents that may be released offsite. The MCR and ESGR ACS will continue to perform its required function. Therefore, there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed additional TS change does not impact the ability of the MCR and ESGR ACS to perform its required function. Therefore, there is no significant increase in individual or cumulative occupational radiation exposure.

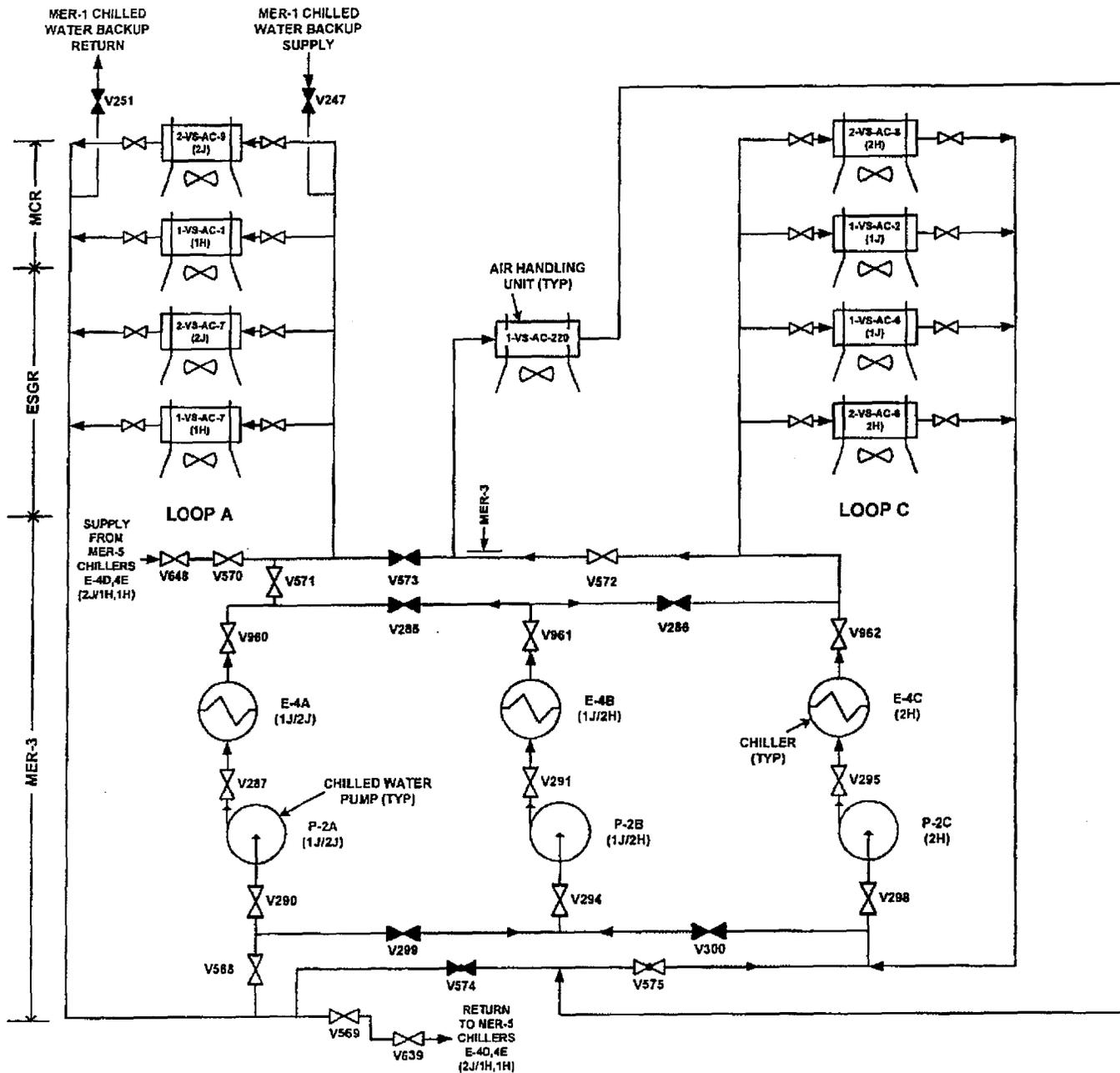
The February 26, 2007 environmental assessment concluded that the chilled water replacement TS change meets the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 51.22 relative to requiring a specific environmental assessment or impact statement by the Commission. That environmental assessment has been reviewed with respect to this proposed additional TS revision, and it has been concluded that it remains applicable.

6.0 Conclusion

The proposed additional TS revision discussed herein modifies the operability requirements for the normal and emergency power sources for the AHUs on the operating chilled water loop to perform specific TS-required surveillance testing without the need to enter the AHU TS action statements. This proposed additional TS revision has been reviewed with respect to the chilled water piping replacement TS change request. The supporting PRA analysis for the chilled water piping replacement TS change included in the February 26, 2007 letter, as well as the PRA information in the associated RAI responses (References 2 through 7), has also been reviewed with respect to this proposed additional TS revision. It has been determined that the supporting PRA analysis and the RAI responses remain applicable and bounding. Thus, the risk associated with the chilled water piping replacement TS change, including the proposed additional TS revision in this letter, has been determined to be acceptably small. In addition, this proposed additional TS revision includes the NRC requested change to delete the phrase "with an average planned out-of-service time of 90 days per 12-month period" from the footnote to TS 3.23, as well as from the TS 3.23 Basis revision, in the February 26, 2007 proposed TS change request. The Station Nuclear Safety and Operating Committee (SNSOC) has reviewed this proposed additional TS revision, and it has been concluded that this additional revision does not have an adverse impact on safety, does not involve a significant hazards consideration, and will not endanger the health and safety of the public.

7.0 References

1. Letter Serial No. 07-0109, dated February 26, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping
2. Letter Serial No. 07-0381, dated May 31, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Response to NRC Request for Additional Information
3. Letter Serial No. 07-0443, dated June 28, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Response to NRC Request for Additional Information
4. Letter Serial No. 07-0443A, dated July 20, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Response to NRC Request for Additional Information
5. Letter Serial No. 07-0109A, dated April 5, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Response to NRC Request for Additional Information
6. Letter Serial No. 07-0109B, dated May 14, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Additional Information Regarding MCR Heatup
7. Letter Serial No. 07-0109C, dated July 13, 2007, Proposed TS Change – Temporary 45-day and 14-day AOTs to Replace MCR and ESGR ACS Chilled Water Piping – Additional Information Regarding Backup Cooling Supply Flow
8. Letter Serial No. 07-0109D, dated September 25, 2007, Proposed TS Change Supplement – Operable Definition Modification for AHUs While in Temporary 45-day AOTs



Note: This figure illustrates a typical valve alignment for the Chilled Water System. The actual valve alignment is dependent upon the specific equipment in operation.

**EXISTING MCR / ESGR
CHILLED WATER
SYSTEM**

FIGURE 2

Attachment 3

Marked-up Technical Specifications Pages

Operable Definition Modification for Air Handling Units While in Temporary 45-day Allowed Outage Times to Perform Required Surveillances

NOTE: The document from which the marked-up pages were excerpted is identified on each page. The revisions from this TS change request are denoted by arrows in the right margin. Notes are included to clarify other changes on the marked-up pages.

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

- (2) The Updated Final Safety Analysis Report supplement as revised on July 25, October 1, November 4, and December 2, 2002, shall be included in the next scheduled update to the licensee's Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59, and otherwise complies with the requirements in that section.
- (3) VEPCO is authorized to revise the Updated Final Safety Analysis Report (UFSAR) to allow implementation of an Alternative GOTHIC Containment Analysis Methodology as set forth in the licensee's application dated October 22, 2007, and as supplemented on November 2, 2007 and November 9, 2007.



Q. Mitigation Strategy

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (1) Fire fighting response strategy with the following elements:
 - a. Pre-defined coordinated fire response strategy and guidance
 - b. Assessment of mutual aid fire fighting assets
 - c. Designated staging areas for equipment and materials
 - d. Command and control
 - e. Training of response personnel
- (2) Operations to mitigate fuel damage considering the following:
 - a. Protection and use of personnel assets
 - b. Communications
 - c. Minimizing fire spread
 - d. Procedures for implementing integrated fire response strategy
 - e. Identification of readily-available pre-staged equipment
 - f. Training on integrated fire response strategy
 - g. Spent fuel pool mitigation measures
- (3) Actions to minimize release to include consideration of:
 - a. Water spray scrubbing
 - b. Dose to onsite responders

INSERT LICENSE CONDITION R.



(2) The Updated Final Safety Analysis Report supplement as revised on July 25, October 1, November 4, and December 2, 2002, shall be included in the next scheduled update to the licensee's Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59, and otherwise complies with the requirements in that section.

R. ~~Q~~. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109).
INSERT A AS PART OF LICENSE CONDITION R.

4. This renewed license is effective as of the date of issuance, and shall expire at midnight on May 25, 2032.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachment: Appendix A, Technical Specifications

Date of Issuance: March 20, 2003

These changes are from letter Serial No. 07-0109.

From current Unit 2 Operating License

~~11-15-07~~

-6-

(3) Actions to minimize release to include consideration of:

a. Water spray scrubbing

b. Dose to onsite responders

INSERT LICENSE CONDITION R.

4. This renewed license is effective as of the date of issuance and shall expire at midnight on January 29, 2033. ←

FOR THE NUCLEAR REGULATORY COMMISSION

original signed by:
Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachment: Appendix A, Technical Specifications

Date of Issuance: March 20, 2003

Renewed License No. DPR-37

P. Updated Final Safety Analysis Report

- (1) The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on July 25, 2002, October 1, 2002, November 4, 2002, and December 2, 2002 describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than January 29, 2013, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.
- (2) The Updated Final Safety Analysis Report supplement as revised on July 25, 2002, October 1, 2002, November 4, 2002, and December 2, 2002, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

These changes are from letter Serial No. 07-0109.

R. ~~Q~~. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109).
INSERT A AS PART OF LICENSE CONDITION R.

4. This renewed license is effective as of the date of issuance, and shall expire at midnight on January 29, 2033.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachment: Appendix A, Technical Specifications

Date of Issuance: March 20, 2003

INSERT A – add to Units 1 and 2 Operating License Condition R:

and in the associated supplemental transmittals. As discussed in the footnote to the Technical Specification 1.0.D definition of OPERABLE, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or (versus and) emergency electrical power source during the temporary 45-day allowed outage times, as discussed in the licensee's submittal dated November 28, 2007 (Serial No. 07-0109E).

From current TS 1.0 DEFINITIONS

TS 1.0-2

~~07-08-93~~

5. REACTOR CRITICAL §

When the neutron chain reaction is self-sustaining and $k_{eff} = 1.0$.

6. POWER OPERATION §

When the reactor is critical and the neutron flux power range instrumentation indicates greater than 2% of rated power.

7. REFUELING OPERATION §

Any operation involving movement of core components when the vessel head is unbolted or removed.

D. OPERABLE §

A system, subsystem, train, component, or device shall be operable or have operability when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s). The system or component shall be considered to have this capability when: (1) it satisfies the limiting conditions for operation defined in Section 3, and (2) it has been tested periodically in accordance with Section 4 and meets its performance requirements. ←

E. PROTECTIVE INSTRUMENTATION LOGIC §

1. ANALOG CHANNEL §

An arrangement of components and modules as required to generate a single protective action digital signal when required by a unit condition. An analog channel loses its identity when single action signals are combined.

* INSERT B AS FOOTNOTE ←

INSERT B – insert as a footnote to the TS 1.0.D definition of OPERABLE :

- * For the purpose of performing Technical Specification-required surveillances that render an emergency diesel generator inoperable, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source to be capable of performing its related support function. This footnote shall only apply during the temporary 45-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping.

2. Air Handling Units (AHUs)

a. Unit 1 air handling units, 1-VS-AC-1, 1-VS-AC-2, 1-VS-AC-6, and 1-VS-AC-7, must be OPERABLE whenever Unit 1 is above COLD SHUTDOWN.

1. If either any single Unit 1 AHU or two Unit 1 AHUs on the same chilled water loop (1-VS-AC-1 and 1-VS-AC-7 or 1-VS-AC-2 and 1-VS-AC-6)* become inoperable, restore operability of the one inoperable AHU or two inoperable AHUs within seven (7) days or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
2. If two Unit 1 AHUs on different chilled water loops and in different air conditioning zones (1-VS-AC-1 and 1-VS-AC-6 or 1-VS-AC-2 and 1-VS-AC-7) become inoperable, restore operability of the two inoperable AHUs within seven (7) days or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
3. If two Unit 1 AHUs in the same air conditioning zone (1-VS-AC-1 and 1-VS-AC-2 or 1-VS-AC-6 and 1-VS-AC-7) become inoperable, restore operability of at least one Unit 1 AHU in each air conditioning zone (1-VS-AC-1 or 1-VS-AC-2 and 1-VS-AC-6 or 1-VS-AC-7) within one (1) hour or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
4. If more than two Unit 1 AHUs become inoperable, restore operability of at least one Unit 1 AHU in each air conditioning zone (1-VS-AC-1 or 1-VS-AC-2 and 1-VS-AC-6 or 1-VS-AC-7) within one (1) hour or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.

b. Unit 2 air handling units, 2-VS-AC-8, 2-VS-AC-9, 2-VS-AC-6, and 2-VS-AC-7 must be OPERABLE whenever Unit 2 is above COLD SHUTDOWN.

1. If either any single Unit 2 AHU or two Unit 2 AHUs on the same chilled water loop (2-VS-AC-7 and 2-VS-AC-9 or 2-VS-AC-6 and 2-VS-AC-8)* become inoperable, restore operability of the one inoperable AHU or two inoperable AHUs within seven (7) days or bring Unit 2 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.

* For the purpose of replacing Main Control Room (MCR) and Emergency Switchgear Room (ESGR) Air Conditioning System chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided. The basis for and the risk evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span, ~~with an average planned out-of-service time of 90 days per 12-month period.~~ The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in the Mechanical Equipment Room #3 (MER-3) associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, this footnote is no longer applicable.

Amendment Nos.

These changes have been incorporated into TS 3.23 by Amendment Nos. 252 and 251.



These changes are from letter Serial No. 07-0109.

The exterior surface of the MCR and ESGR ACS chilled water piping located in the ESGR, the MCR, and MER-3 is exhibiting general corrosion. For the purpose of replacing the MCR and ESGR ACS chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided, as discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1. The basis for and the risk evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span, ~~with an average planned out-of-service time of 90 days per 12-month period.~~ The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in MER-3 associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, the footnote is no longer applicable.

These changes are from
letter Serial No. 07-0109.

Attachment 4

Proposed Technical Specifications Pages

**Operable Definition Modification for Air Handling Units
While in Temporary 45-day Allowed Outage Times
to Perform Required Surveillances**

NOTE: The typed pages reflect two sets of revision bars in the right margin. The inner revision bars (closer to the text) identify the revisions from the TS change request in letter Serial No. 07-0109. The outer revision bars (closer to the edge of the page) identify the revisions from this TS change request.

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

- (2) The Updated Final Safety Analysis Report supplement as revised on July 25, October 1, November 4, and December 2, 2002, shall be included in the next scheduled update to the licensee's Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following the issuance of this renewed license. Until that update is complete, the licensee may make changes to the programs described in such supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59, and otherwise complies with the requirements in that section.
- (3) VEPCO is authorized to revise the Updated Final Safety Analysis Report (UFSAR) to allow implementation of an Alternative GOTHIC Containment Analysis Methodology as set forth in the licensee's application dated October 22, 2007, and as supplemented on November 2, 2007 and November 9, 2007.

Q. Mitigation Strategy

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (1) Fire fighting response strategy with the following elements:
 - a. Pre-defined coordinated fire response strategy and guidance
 - b. Assessment of mutual aid fire fighting assets
 - c. Designated staging areas for equipment and materials
 - d. Command and control
 - e. Training of response personnel
- (2) Operations to mitigate fuel damage considering the following:
 - a. Protection and use of personnel assets
 - b. Communications
 - c. Minimizing fire spread
 - d. Procedures for implementing integrated fire response strategy
 - e. Identification of readily-available pre-staged equipment
 - f. Training on integrated fire response strategy
 - g. Spent fuel pool mitigation measures
- (3) Actions to minimize release to include consideration of:
 - a. Water spray scrubbing
 - b. Dose to onsite responders

- R. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109) and in the associated supplemental transmittals. As discussed in the footnote to the Technical Specification 1.0.D definition of OPERABLE, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or (versus and) emergency electrical power source during the temporary 45-day allowed outage times, as discussed in the licensee's submittal dated November 28, 2007 (Serial No. 07-0109E).
4. This renewed license is effective as of the date of issuance and shall expire at midnight on May 25, 2032.

FOR THE NUCLEAR REGULATORY COMMISSION

original signed by:
Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachment: Appendix A, Technical Specifications

Date of Issuance: March 20, 2003

(3) Actions to minimize release to include consideration of:

- a. Water spray scrubbing
- b. Dose to onsite responders

R. As discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1, the use of temporary 45-day and 14-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping shall be in accordance with the basis, risk evaluation, equipment unavailability restrictions, and compensatory actions provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109) and in the associated supplemental transmittals. As discussed in the footnote to the Technical Specification 1.0.D definition of OPERABLE, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or (versus and) emergency electrical power source during the temporary 45-day allowed outage times, as discussed in the licensee's submittal dated November 28, 2007 (Serial No. 07-0109E).

4. This renewed license is effective as of the date of issuance and shall expire at midnight on January 29, 2033.

FOR THE NUCLEAR REGULATORY COMMISSION

original signed by:
Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Attachment: Appendix A, Technical Specifications

Date of Issuance: March 20, 2003

5. REACTOR CRITICAL

When the neutron chain reaction is self-sustaining and $k_{eff} = 1.0$.

6. POWER OPERATION

When the reactor is critical and the neutron flux power range instrumentation indicates greater than 2% of rated power.

7. REFUELING OPERATION

Any operation involving movement of core components when the vessel head is unbolted or removed.

D. OPERABLE

A system, subsystem, train, component, or device shall be operable or have operability when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and* emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s). The system or component shall be considered to have this capability when: (1) it satisfies the limiting conditions for operation defined in Section 3, and (2) it has been tested periodically in accordance with Section 4 and meets its performance requirements.

E. PROTECTIVE INSTRUMENTATION LOGIC1. ANALOG CHANNEL

An arrangement of components and modules as required to generate a single protective action digital signal when required by a unit condition. An analog channel loses its identity when single action signals are combined.

* For the purpose of performing Technical Specification-required surveillances that render an emergency diesel generator inoperable, the definition of OPERABLE for the air handling units on the operating chilled water loop is modified to require the normal or emergency electrical power source to be capable of performing its related support function. This footnote shall only apply during the temporary 45-day allowed outage times to permit replacement of the Main Control Room and Emergency Switchgear Room Air Conditioning System chilled water piping.

2. Air Handling Units (AHUs)

a. Unit 1 air handling units, 1-VS-AC-1, 1-VS-AC-2, 1-VS-AC-6, and 1-VS-AC-7, must be OPERABLE whenever Unit 1 is above COLD SHUTDOWN.

1. If either any single Unit 1 AHU or two Unit 1 AHUs on the same chilled water loop (1-VS-AC-1 and 1-VS-AC-7 or 1-VS-AC-2 and 1-VS-AC-6)* become inoperable, restore operability of the one inoperable AHU or two inoperable AHUs within seven (7) days or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
2. If two Unit 1 AHUs on different chilled water loops and in different air conditioning zones (1-VS-AC-1 and 1-VS-AC-6 or 1-VS-AC-2 and 1-VS-AC-7) become inoperable, restore operability of the two inoperable AHUs within seven (7) days or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
3. If two Unit 1 AHUs in the same air conditioning zone (1-VS-AC-1 and 1-VS-AC-2 or 1-VS-AC-6 and 1-VS-AC-7) become inoperable, restore operability of at least one Unit 1 AHU in each air conditioning zone (1-VS-AC-1 or 1-VS-AC-2 and 1-VS-AC-6 or 1-VS-AC-7) within one (1) hour or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.
4. If more than two Unit 1 AHUs become inoperable, restore operability of at least one Unit 1 AHU in each air conditioning zone (1-VS-AC-1 or 1-VS-AC-2 and 1-VS-AC-6 or 1-VS-AC-7) within one (1) hour or bring Unit 1 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.

b. Unit 2 air handling units, 2-VS-AC-8, 2-VS-AC-9, 2-VS-AC-6, and 2-VS-AC-7 must be OPERABLE whenever Unit 2 is above COLD SHUTDOWN.

1. If either any single Unit 2 AHU or two Unit 2 AHUs on the same chilled water loop (2-VS-AC-7 and 2-VS-AC-9 or 2-VS-AC-6 and 2-VS-AC-8)* become inoperable, restore operability of the one inoperable AHU or two inoperable AHUs within seven (7) days or bring Unit 2 to HOT SHUTDOWN within the next six (6) hours and be in COLD SHUTDOWN within the following 30 hours.

* For the purpose of replacing Main Control Room (MCR) and Emergency Switchgear Room (ESGR) Air Conditioning System chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided. The basis for and the risk evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span. The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in the Mechanical Equipment Room #3 (MER-3) associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, this footnote is no longer applicable.

The exterior surface of the MCR and ESGR ACS chilled water piping located in the ESGR, the MCR, and MER-3 is exhibiting general corrosion. For the purpose of replacing the MCR and ESGR ACS chilled water piping, temporary 45-day and 14-day allowed outage times (AOTs) are provided, as discussed in the footnote to Technical Specifications 3.23.C.2.a.1 and 3.23.C.2.b.1. The basis for and the risk evaluation of the temporary AOTs, as well as equipment unavailability restrictions and compensatory actions, are provided in the licensee's submittal dated February 26, 2007 (Serial No. 07-0109). Four entries into the temporary AOTs are permitted in a 24-month time span. The 24-month time frame begins upon entry into the first temporary AOT. The four entries accommodate replacement of 1) the chilled water loop C piping in the ESGR and the MCR (45-day AOT), 2) the chilled water loop A piping in the ESGR and the MCR (45-day AOT), 3) the chilled water piping in MER-3 associated with chiller 1-VS-E-4A (14-day AOT), and 4) the chilled water piping in MER-3 associated with chiller 1-VS-E-4C (14-day AOT). Upon completion of the work associated with the fourth temporary AOT, the footnote is no longer applicable.

Amendment Nos.