VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 22, 2018

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No.: 17-430
NL&OS/RAP: Rev. 0
Docket Nos.: 50-338/339
License Nos.: NPF-4/7

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA)
NORTH ANNA POWER STATION UNITS 1 AND 2
APPLICATION TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT TSTF-522, REVISE VENTILATION SYSTEM SURVEILLANCE REQUIREMENTS TO OPERATE FOR 10 HOURS PER MONTH

In accordance with the provisions of 10 CFR 50.90, Dominion Energy Virginia is submitting a request for an amendment to the Technical Specifications (TS) for North Anna Power Station (NAPS) Units 1 and 2.

The proposed amendment would modify TS requirements to operate ventilation systems with charcoal filters for 10 hours each month in accordance with TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month." Additionally, an administrative change is being made to the Environmental Protection Plan (EPP) to reflect current code numbering.

Attachment 1 provides a description and assessment of the proposed changes, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing TS pages marked-up to show the proposed changes. Attachment 3 provides revised (clean) TS pages showing the proposed changes. Attachment 4 provides existing TS Bases pages marked-up to show the proposed changes. Attachment 4 is provided for information only. Final TS Bases changes will be processed in accordance with the TS 5.5.13, "Bases Control Program," at the time the amendment is issued.

Dominion Energy Virginia has evaluated the proposed amendment and determined that it does not involve a significant hazards consideration as defined in 10 CFR 50.92. The basis for this determination is included in Attachment 1. Dominion Energy Virginia has also determined that operation with the proposed change will not result in any significant increase in the amount of effluents that may be released offsite or any significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed amendment is eligible for categorical exclusion from an environmental assessment as set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is needed in connection with the approval of the proposed change.

The proposed license amendment has been reviewed and approved by the NAPS Facility Safety Review Committee.

Dominion Energy Virginia requests approval of the proposed license amendment by January 1, 2019, with the amendment being implemented within 60 days.

A001
NRR

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Virginia State Official.

If you have any questions or require additional information, please contact Ms. Diane Aitken at (804) 273-2694.

Very truly yours,

Mark D. Sartain
Vice President – Nuclear Engineering and Fleet Support

Attachments
1. Discussion of Change
2. Marked-up Technical Specifications Pages
3. Proposed Technical Specifications Changes Pages
4. Marked-up Technical Specifications Bases Pages (for information only)

Commitments made in this letter: None

COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by M. D. Sartain who is Vice President - Nuclear Engineering and Fleet Support of Virginia Electric and Power Company. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 22 day of January, 2018.

My Commission Expires: August 31, 2019.

Notary Public

GARY DON MILLER
Notary Public
Commonwealth of Virginia
Reg. # 7629412
My Commission Expires August 31, 2019

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Attachment 1

Discussion of Change

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

1.0 Description

The proposed change revises the Surveillance Requirements (SR) which currently require operating ventilation systems with the heaters operating for a continuous 10 hour period every 31 days. The SRs are revised to require operation of the systems for 15 continuous minutes every 31 days.

The proposed amendment is consistent with TSTF-522, Revision 0, "Revise Ventilation System Surveillance Requirements to Operate for 10 hours per Month."

2.0 Assessment

2.1 Applicability of Published Safety Evaluation

Dominion Energy Virginia has reviewed the model safety evaluation dated September 13, 2012 as part of the Federal Register Notice of Availability. This review included a review of the NRC staff's evaluation, as well as the information provided in TSTF-522, Revision 0. As described in the subsequent paragraphs, Dominion Energy Virginia has concluded that the justification presented in the TSTF-522, Revision 0 proposal and the model safety evaluation prepared by the NRC staff are applicable to North Anna Power Station (NAPS) and justify this amendment for the incorporation of the changes to the NAPS TS.

2.2 Optional Changes and Variations

Dominion Energy Virginia is proposing the following variations from the TS changes described in the TSTF-522, Revision 0, or the applicable parts of the NRC staff's model safety evaluation dated September 13, 2012.

As noted in the NRC's model safety evaluation, some plants have adopted TSTF-425, which relocated the fixed SR Frequencies to a licensee-controlled program, the Surveillance Frequency Control Program (SFCP). The NAPS TS were revised to adopt the SFCP in License Amendment 262/243. Thus, the proposed changes are consistent with the current NAPS licensing basis, the NRC's model safety evaluation, and therefore, is an allowable variation from the approved Traveler.

In addition, Dominion Energy Virginia is proposing to modify the requirements in the Ventilation Filter Testing Program (VFTP), TS 5.5.10, to remove the electric heater output test (TS 5.5.10.e) and to increase the specified relative humidity (RH) for the charcoal testing for the MCR/ESGR EVS from the current 70% to 95% RH in TS 5.5.10.c. The more stringent RH requirement will mean the heaters will no longer be relied upon to remove the additional moisture from the incoming air. This proposed change is consistent with TSTF-522, Revision 0, as the Standard TS (NUREG-1431) on which the Traveler is based, contains both options of with and without humidity control (i.e. electrical heaters) as bracketed

versions of the SR. The NRC's model safety evaluation also acknowledges both options are allowed, as this is consistent with current Staff guidance in Regulatory Guide 1.52, Revision 3. Therefore, this proposed change is consistent with the approved Traveler and model safety evaluation and does not constitute a technical deviation.

Additionally, an administrative change is being made to the Environmental Protection Plan (EPP) to reflect current code numbering. The specific change is updating 10 CFR 50.72(b)(2)(vi) to the current code numbering of 10 CFR 50.72(b)(2)(xi).

3.0 Regulatory Analysis

3.1 No Significant Hazards Consideration

NAPS, Units 1 and 2 requests adoption of an approved change to the standard technical specifications (STS) and plant specific TS, to revise TS 3.7.10, "Control Room Emergency Filtration System (MCR/ESGR EVS)," and TS 3.7.12, "Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS)," in the ISTS for Westinghouse plants (NUREG-1431) from operating the MCR/ESGR EVS and ECCS PREACS with the electric heaters for a continuous 10 hour period every 31 days to require operation of the systems for 15 continuous minutes every 31 days. In addition, the requirements in the VFTP, TS 5.5.10, will be revised to remove the electric heater output test (TS 5.5.10.e) and to increase the specified relative humidity (RH) for the charcoal testing for the MCR/ESGR EVS from the current 70% to 95% RH in TS 5.5.10.c. Additionally, an administrative change is being made to the EPP to reflect current code numbering.

The TSTF has evaluated whether or not a significant hazards consideration is involved with the proposed generic change by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   The proposed change replaces existing SRs to operate the MCR/ESGR EVS and ECCS PREACS Systems equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes every 31 days with heaters operating, if needed. In addition, the electrical heater output test in the VFTP (TS 5.5.10.e) is proposed to be removed and a corresponding change in the charcoal filter testing (TS 5.5.10.c) be made to require testing be conducted at a humidity of at least 95% RH, which is more stringent than the current testing requirement of 70% RH.

These systems are not accident initiators and therefore, these changes do not involve a significant increase in the probability of an accident. The proposed system and filter testing changes are consistent with current regulatory guidance for these systems and will continue to assure that these systems perform their design function which may include mitigating accidents. Thus, the change does not involve a significant increase in the consequences of an accident.

The change to the EPP is administrative in nature to reflect approved NRC references (codes).

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change replaces existing SRs to operate the MCR/ESGR EVS and ECCS PREACS Systems equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes every 31 days with heaters operating, if needed. In addition, the electrical heater output test in the VFTP (TS 5.5.10.e) is proposed to be removed and a corresponding change in the charcoal filter testing (TS 5.5.10.c) be made to require testing be conducted at a humidity of at least 95% RH, which is more stringent than the current testing requirement of 70% RH.

   The change proposed for these ventilation systems does not change any system operations or maintenance activities. Testing requirements will be revised and will continue to demonstrate that the Limiting Conditions for Operation are met and the system components are capable of performing their intended safety functions. The change does not create new failure modes or mechanisms and no new accident precursors are generated.

   The change to the EPP is administrative in nature to reflect approved NRC references (codes).

   Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change replaces existing SRs to operate the MCR/ESGR EVS and ECCS PREACS Systems equipped with electric heaters for a continuous 10 hour period every 31 days with a requirement to operate the systems for 15 continuous minutes every 31 days with heaters operating, if needed. In addition, the electrical heater output test in the VFTP (TS 5.5.10.e) is proposed to be removed and a corresponding change in the charcoal filter testing (TS 5.5.10.c) be made to require testing be conducted at a humidity of at least 95% RH, which is more stringent than the current testing requirement of 70% RH.

   The proposed increase to 95% RH in the required testing of the MCR/ESGR EVS charcoal filters compensates for the function of the heaters, which was to reduce the humidity of the incoming air to below the currently-specified value of 70% RH for the charcoal. The proposed change is consistent with regulatory guidance and continues to ensure that the performance of the charcoal filters is acceptable.

   The change to the EPP is administrative in nature to reflect approved NRC references (codes).

   Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety.

Based on the above, Dominion Energy Virginia concludes that the proposed change presents no significant hazards considerations under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.0 Environmental Consideration

A review has determined that the proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

Attachment 2

Marked-up Technical Specifications Pages

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued) OR Two required MCR/ESGR EVS trains inoperable during movement of recently irradiated fuel assemblies for reasons other than Condition B.		
F. Two required MCR/ESGR EVS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Operate each required MCR/ESGR EVS train for ≥ 15 continuous ~~hours with the heaters operating~~ minutes.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.2	Perform required MCR/ESGR EVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with VFTP
SR 3.7.10.3	Not Used	

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Two ECCS PREACS trains inoperable due to inoperable ECCS pump room boundary affecting filtration capability.	D.1.1 Verify ECCS leakage log is less than the maximum allowable unfiltered leakage. AND D.1.2 Verify by field walkdown that ECCS leakage is less than the maximum allowable unfiltered leakage. AND D.1.3 Restore ECCS pump room boundary to OPERABLE status. OR D.2 Restore ECCS pump room boundary to OPERABLE status.	1 hour Once per 12 hours thereafter 14 days 24 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each ECCS PREACS train for ≥ ~~10~~ 15 continuous ~~hours~~ minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program

5.5 Programs and Manuals

5.5.10 Ventilation Filter Testing Program (VFTP)

c. (continued)

value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C (86°F) and relative humidity specified below.

ESF Ventilation System	Penetration	RH
MCR/ESGR EVS	2.5%	70% ← 95%
ECCS PREACS	5%	70%

d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, the prefilters, and the charcoal adsorbers is less than the value specified below when tested in accordance with ANSI N510-1975 at the system flowrate specified below.

ESF Ventilation System	Delta P	Flowrate
MCR/ESGR EVS	4 inches W.G.	1000 ± 10% cfm
ECCS PREACS	5 inches W.G.	≤ 39,200 cfm

remove

e. Demonstrate that the heaters for each of the ESF systems dissipate ≥ the value specified below when tested in accordance with ASME N510-1975.

ESF Ventilation System	Wattage
MCR/ESGR EVS	3.5 kW

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.11 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Gaseous Waste System, the quantity of radioactivity contained in gas storage tanks, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The gaseous radioactivity quantities shall be determined following the methodology in Branch Technical Position (BTP) ETSB 11-5, "Postulated Radioactive Release due to Waste Gas System Leak or

(continued)

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and promptly reported to the NRC in accordance with 10 CFR 50.72(b)(2)(~~vi~~) xi followed by a written report as specified in Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, significant increase in nuisance organisms or conditions and unanticipated or emergency discharge of waste water or chemical substances.

4.2 Environmental Monitoring

4.2.1 Herbicide Application

The use of herbicides within the corridor rights-of-way as described and evaluated in the FES-OL dated April 1973 shall conform to the approved use of selected herbicides as registered by the Environmental Protection Agency and approved by State authorities and applied as directed by said authorities.

Records shall be maintained in the appropriate division office concerning herbicide use. Such records shall include the following information: commercial and chemical names of materials used; concentration of active material in formulations diluted for field use; diluting substances other than water; rates of application; method and frequency of application; location; and the date of application. Such records shall be maintained for a period of 5 years and be made readily available to the NRC upon request. There shall be no routine reporting requirement associated with this condition.

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xi

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Attachment 3

Proposed Technical Specifications Changes Pages

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued) OR Two required MCR/ESGR EVS trains inoperable during movement of recently irradiated fuel assemblies for reasons other than Condition B.		
F. Two required MCR/ESGR EVS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Operate each required MCR/ESGR EVS train for ≥ 15 continuous minutes.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.2	Perform required MCR/ESGR EVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with VFTP
SR 3.7.10.3	Not Used	

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Two ECCS PREACS trains inoperable due to inoperable ECCS pump room boundary affecting filtration capability.	D.1.1 Verify ECCS leakage log is less than the maximum allowable unfiltered leakage.	1 hour
	AND	
	D.1.2 Verify by field walkdown that ECCS leakage is less than the maximum allowable unfiltered leakage.	Once per 12 hours thereafter
	AND	
	D.1.3 Restore ECCS pump room boundary to OPERABLE status.	14 days
	OR	
	D.2 Restore ECCS pump room boundary to OPERABLE status.	24 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours
	AND	
	E.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each ECCS PREACS train for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program

5.5 Programs and Manuals

5.5.10 Ventilation Filter Testing Program (VFTP)

c. (continued)

value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C (86°F) and relative humidity specified below.

ESF Ventilation System	Penetration	RH
MCR/ESGR EVS	2.5%	95%
ECCS PREACS	5%	70%

d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, the prefilters, and the charcoal adsorbers is less than the value specified below when tested in accordance with ANSI N510-1975 at the system flowrate specified below.

ESF Ventilation System	Delta P	Flowrate
MCR/ESGR EVS	4 inches W.G.	1000 ± 10% cfm
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The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.11 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Gaseous Waste System, the quantity of radioactivity contained in gas storage tanks, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The gaseous radioactivity quantities shall be determined following the methodology in Branch Technical Position (BTP) ETSB 11-5, "Postulated Radioactive Release due to Waste Gas System Leak or

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Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and promptly reported to the NRC in accordance with 10 CFR 50.72(b)(2)(xi) followed by a written report as specified in Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, significant increase in nuisance organisms or conditions and unanticipated or emergency discharge of waste water or chemical substances.

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Records shall be maintained in the appropriate division office concerning herbicide use. Such records shall include the following information: commercial and chemical names of materials used; concentration of active material in formulations diluted for field use; diluting substances other than water; rates of application; method and frequency of application; location; and the date of application. Such records shall be maintained for a period of 5 years and be made readily available to the NRC upon request. There shall be no routine reporting requirement associated with this condition.

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Attachment 4

Marked-up Technical Specifications Bases Pages (for information only)

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

BASES

BACKGROUND (continued)

events, and accident conditions. The MCR/ESGR envelope boundary is the combination of walls, floor, roof, ducting, doors, penetrations and equipment that physically form the MCR/ESGR envelope. The OPERABILITY of the MCR/ESGR envelope boundary must be maintained to ensure that the inleakage of unfiltered air into the MCR/ESGR envelope will not exceed the inleakage assumed in the licensing basis analysis of design basis accident (DBA) consequences to MCR/ESGR envelope occupants. The MCR/ESGR envelope and its boundary are defined in the MCR/ESGR Envelope Habitability Program.

Upon receipt of an actuating signal(s) (i.e., SI, fuel building radiation monitors or manual), normal air supply to and exhaust from the MCR/ESGR envelope is isolated, and at least two trains of MCR/ESGR EVS receive a signal to actuate to recirculate air in the MCR/ESGR envelope. Approximately 60 minutes after actuation of the MCR/ESGR Isolation Actuation Instrumentation, a single MCR/ESGR EVS train is manually actuated or aligned to provide filtered outside air to the MCR/ESGR envelope through HEPA filters and charcoal adsorbers. The demisters remove any entrained water droplets present, to prevent excessive moisture loading of the HEPA filters and charcoal adsorbers. ~~Continuous operation of each train for at least 10 hours per month, with the heaters on, reduces moisture buildup on the HEPA filters and adsorbers. Both the~~ The demister ~~and heater are~~ is important to the ~~effectiveness~~ effectiveness of the HEPA filters and charcoal adsorbers.

Although not assumed in the Analysis of Record, pressurization of the MCR/ESGR envelope minimizes infiltration of unfiltered air through the MCR/ESGR envelope boundary from all the surrounding areas adjacent to the MCR/ESGR envelope boundary.

Redundant MCR/ESGR EVS supply and recirculation trains provide the required filtration of outside air should an excessive pressure drop develop across the other filter train.

(continued)

BASES

LCO (continued)

The MCR/ESGR EVS is considered OPERABLE when the individual components necessary to limit MCR/ESGR envelope occupant exposure are OPERABLE in the two required trains of the MCR/ESGR EVS. 1-HV-F-41 can not be used to satisfy the requirements of LCO 3.7.10.

An MCR/ESGR EVS train is OPERABLE when the associated:

a. Fan is OPERABLE;

b. Demister filters, HEPA filters and charcoal adsorbers are not excessively restricting flow, and are capable of performing their filtration functions; and

c. ~~Heater,~~ ductwork, valves, and dampers are OPERABLE, and air flow can be maintained.

The MCR/ESGR EVS is shared by Unit 1 and Unit 2.

In order for the MCR/ESGR EVS trains to be considered OPERABLE, the MCR/ESGR envelope boundary must be maintained such that the MCR/ESGR envelope occupant dose from a large radioactive release does not exceed the calculated dose in the licensing basis consequence analyses for DBAs, and that MCR/ESGR envelope occupants are protected from hazardous chemicals and smoke.

The LCO is modified by a Note allowing the MCR/ESGR envelope boundary to be opened intermittently under administrative controls. This Note only applies to openings in the MCR/ESGR envelope boundary that can be rapidly restored to the design condition, such as doors, hatches, floor plugs, and access panels. For entry and exit through doors the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls should be proceduralized and consist of stationing a dedicated individual at the opening who is in continuous communication with the operators in the MCR/ESGR envelope. This individual will have a method to rapidly close the opening and restore the MCR/ESGR envelope boundary to a condition equivalent to the design condition when a need for MCR/ESGR isolation is indicated.

BASES

ACTIONS

D.1.1, D.1.2, and D.2 (continued)

An alternative to Required Action D.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes accident risk. This does not preclude the movement of fuel to a safe position.

E.1

During movement of recently irradiated fuel assemblies, if a required train of MCR/ESGR EVS train becomes inoperable due to an inoperable MCR/ESGR envelope boundary or two required MCR/ESGR EVS trains inoperable, action must be taken immediately to suspend activities that could result in a release of radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk. This does not preclude the movement of fuel to a safe position.

F.1

When two required MCR/ESGR EVS trains are inoperable in MODE 1, 2, 3, or 4 for reasons other than an inoperable MCR/ESGR envelope boundary (i.e., Condition B), the MCR/ESGR EVS may not be capable of performing the intended function and the unit is in a condition outside the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

SURVEILLANCE REQUIREMENTS

SR 3.7.10.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on the MCR/ESGR EVS are not too severe, testing each required train once every month provides an adequate check of this system. ~~Monthly heater operations dry out any moisture accumulated in the charcoal and HEPA filters from humidity in the ambient air.~~ Each required train must be operated for ≥ ~~10~~ 15 continuous ~~hours with the heaters energized.~~ minutes The Surveillance Frequency is based on operating experience, equipment reliability, and plant risk and is controlled under the Surveillance Frequency Control Program.

BASES

SR 3.7.10.4 (continued)

Depending upon the nature of the problem and the corrective action, a full scope inleakage test may not be necessary to establish that the MCR/ESGR envelope boundary has been restored to OPERABLE status.

REFERENCES

1. UFSAR, Section 6.4.

2. UFSAR, Chapter 15.

3. 10 CFR 50, Appendix A.

4. Control Room Habitability Study (Supplement to 1980 Onsite Control Room Habitability Study - North Anna Power Station Units 1 and 2, January 1982.

5. Letter from L.N. Hartz (Virginia Electric and Power Company) to the USNRC, dated March 3, 2004, Response to Generic Letter 2003-01, "Control Room Habitability - Control Room Testing & Technical Information."

6. Regulatory Guide 1.196.

7. NEI 99-03, "Control Room Habitability Assessment," June 2001.

8. Letter from Eric J. Leeds (NRC) to James W. Davis (NEI) dated January 30, 2004, "NEI Draft White Paper, Use of Generic Letter 91-18 Process and Alternative Source Terms in the Context of Control Room Habitability." (ADAMS Accession No. ML040300694)

9. TSTF-522

BASES

ACTIONS

D.2 (continued)

is inoperable, appropriate compensatory measures consistent with the intent of GDC 19 should be utilized to protect control room operators from potential hazards such as radioactive contamination. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the ECCS pump room boundary.

E.1 and E.2

If the ECCS PREACS train(s) or ECCS pump room boundary cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours, and in MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.12.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not severe, testing each train once a month provides an adequate check on this system. Monthly heater operations dry out any moisture that may have accumulated in the charcoal and HEPA filters from humidity in the ambient air. The system must be operated ≥ ~~10~~ 15 continuous ~~hours~~ minutes with the heaters energized. The Surveillance Frequency is based on operating experience, equipment reliability, and plant risk and is controlled under the Surveillance Frequency Control Program.

BASES

REFERENCES

1. UFSAR, Section 9.4.
2. UFSAR, Section 15.4.
3. Regulatory Guide 1.52 (Rev. 2).
4. 10 CFR 50, Appendix A.
5. NUREG-0800, Rev. 2, July 1981.
6. UFSAR, Figure 15.4-110
7. TSTF-522