

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 21, 2001

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Serial No. 01-281A
NL&OS/mm
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
PROPOSED IMPROVED TECHNICAL SPECIFICATIONS
REQUEST FOR ADDITIONAL INFORMATION – SECTIONS 3.4 & 3.6
SUBMITTAL OF OMITTED PAGES

By letter dated June 18, 2001, Virginia Electric and Power Company (Dominion) submitted a response to a Request for Additional Information on North Anna Power Station Units 1 and 2 Proposed Improved Technical Specifications – Sections 3.4 & 3.6. Subsequently, it was discovered that pages associated with Questions 14-16 were inadvertently omitted from the submitted response.

To correct this administrative error, please insert the attached 11 pages associated with the response to Questions 14-16 into the previously transmitted letter of June 18, 2001 to complete the package. If you have any questions or require additional information, please contact us.

Very truly yours,



S. P. Sarver, Director
Nuclear Licensing and Operations Support

Commitments made in this letter: None

A001

cc: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Suite 23T85
Atlanta, Georgia 30303-8931

Mr. M. J. Morgan
NRC Senior Resident Inspector
North Anna Power Station

Commissioner (w/o attachments)
Bureau of Radiological Health
1500 East Main Street
Suite 240
Richmond, VA 23218

Mr. J. E. Reasor, Jr. (w/o attachments)
Old Dominion Electric Cooperative
Innsbrook Corporate Center
4201 Dominion Blvd.
Suite 300
Glen Allen, Virginia 23060

3.6.2 Containment Air Locks

14. Bases JFD 8
(3.6.2-8) STS B3.6.2 Bases - LCO
ITS B3.6.2 Bases - LCO

NRC RAI: The fourth sentence in the second paragraph of STS B3.6.2 Bases - LCO states the following: "This provision ensures that...." The ITS markup of ITS B3.6.2 Bases - LCO modifies this sentence by substituting Insert 2 for "This," adding an "s" to "provision" and deleting the "s" in "ensures." However, insert 2 states "Operation of These provisions." Thus the markup ends with two "provisions" back-to-back, which results in the sentence not making sense. **Comment:** Correct this discrepancy.

Response: The Company will take the action proposed in the Comment. The word "provisions" is removed from Insert 2.

ITS 3.6.2, CONTAINMENT AIR LOCKS

INSERT 1

Opening or closing of the manways of the 7 ft personnel air lock is treated in the same manner as opening or closing of the associated door.

INSERT 2

Operation of the manways of the 7 ft personnel air lock is controlled administratively. These

R1
RAI
3.6.2-8

3.6.2 Containment Air Locks

15. STS SR 3.6.2.2
(3.6.2-9) ITS SR 3.6.2.2 and Associated Bases

NRC RAI: STS SR 3.6.2.2 requires verifying only one door in the air lock will open at a time at a 6-month interval. The interval is modified in ITS SR 3.6.2.2 from 6 months to 24 months. This modification is in accordance with TSTF-17 Rev. 2; however, the Bases changes are not in accordance with TSTF-17 Rev. 2. **Comment:** Revise the ITS Bases to be in accordance with TSTF-17 Rev. 2 or justify the deviations.

Response: The Company will take the action proposed in the Comment. The sentence, "The 24 month Frequency for the interlock is justified based on generic operating experience." is added to the SR 3.6.2.2 Bases. Also, JFD 9 is added and the TSTF-17 insert is modified to justify how the TSTF was addressed.

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.2.2 (continued)

OPERABILITY if the Surveillance were performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience. The 24 month Frequency is also based on engineering judgment and is considered adequate given that the interlock is not challenged during use of the air lock.

RAI
3.6.2-9
RI

REFERENCES

1. 10 CFR 50, Appendix J, Option B.
 2. UFSAR, Section 6.2.
 3. UFSAR, Chapter 15.
-
-

ITS 3.6.2, CONTAINMENT AIR LOCKS

INSERT

every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a (plant) outage, and the potential for loss of (primary {BWP only}) containment OPERABILITY if the Surveillance were performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience.

unit

①

⑨

R1
RAI
3.6.2-9

JUSTIFICATION FOR DEVIATIONS
ITS 3.6.2 BASES, CONTAINMENT AIR LOCKS

1. Changes are made (additions, deletions, and/or changes) to the ISTS that reflect the plant specific nomenclature, number, reference, system description, analysis, or licensing basis description.
2. Changes are made to reflect those changes made to the ISTS. The following requirements are renumbered or revised, where applicable, to reflect the changes.
3. The brackets have been removed and the proper plant specific information/value has been provided.
4. The criteria of the NRC Final Policy Statement on Technical Specifications Improvements have been included in 10 CFR 50.36(c)(2)(ii). Therefore, references in the ISTS Bases to the NRC Final Policy Statement are revised in the ITS Bases to reference 10 CFR 50.36.
5. One of the containment air locks is part of the containment wall and the other is an integral part of the containment equipment hatch. Descriptions of the differences between the two air locks are incorporated into the Bases.
6. The discussion regarding pressure seated doors and how an increase in containment internal pressure increasing the sealing force on each door is deleted. This discussion only applies to the inside door, and given the normal subatmospheric containment pressure, the discussion becomes confusing and is unnecessary.
7. The 5.75 ft equipment hatch escape airlock is only for use in emergencies due to its small size and its configuration. The 7 ft personnel airlock is the preferred means of access. The Actions Bases are modified to reflect this design. The Bases for Note 2 regarding Required Actions A.1, A.2 and A.3 are modified to allow entry and exit for 7 days under administrative control for either air lock having an inoperable door to reflect this design.
8. A description is added to the Background stating that the inner and outer door of the 7 ft diameter personnel airlock include an 18 inch diameter emergency manway. The manways contain double gasketed seals and local leak rate testing capability to ensure pressure integrity. Operation of the manways of the 7 ft personnel air lock is controlled administratively. Additional words are provided to the LCO and SR 3.6.2.2 Bases clarifying that the interlocks together with administrative procedures prevent simultaneous opening of the inner and outer doors of the 7 ft personnel airlock.
9. This bracketed requirement/information is deleted because it is not applicable to North Anna. RAI
3.6.2-9
R1
10. Typographical/grammatical error corrected.

3.6.2 Containment Air Locks

16. CTS 4.6.1.3.a
(3.6.2-10) ITS SR 3.6.2.1 Notes and Associated Bases

NRC RAI: ITS SR 3.6.2.1 contains two notes. CTS 4.6.1.3.a does not contain these notes, and the CTS markup does not show their addition. **Comment:** Revise the CTS markup and provide the appropriate discussions and justification for the addition of ITS SR 3.6.2.1 Notes 1 and 2.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified to add Notes 1 and 2, and DOC A.9 and DOC A.10, respectively, are added to justify addition of the Notes.

CONTAINMENT SYSTEMS
CONTAINMENT AIR LOCKS
LIMITING CONDITION FOR OPERATION

3.6.2

3.6.1.3 Each containment air lock shall be OPERABLE with:
a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
b. An overall air lock leakage rate of less than or equal to 0.05 L₂ at P₂ greater than or equal to 44.1 psig.

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2

ACTION:

Action A.1

Action A.2

Action A.3

Action D.1

Action D.2

Add Proposed Condition B

Add Proposed Action C.1

Action C.2

Action C.3

Action D.1

Action D.2

- 2. With one ^{or more} containment air lock door inoperable:
 - 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
 - 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days. ← Add proposed Action A.3 NOTE
 - 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- 4. The provisions of Specification 3.0.4 are not applicable.
 - 1. With containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed, restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1

the Containment Leakage Rate Testing Program

SR 3.6.2.2

- 2. By performing leakage rate testing as required by 10 CFR 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the guidelines contained in Regulatory Guide 1.163, dated September 1995. The provisions of Specification 4.0.2 are not applicable.
- 3. At least once per ^{one or more} refueling outage by verifying that only one door in each air lock can be opened at a time. 24 months

and exit affected components

Action NOTE 1

Entry to repair the inoperable air lock door, if inoperable, is allowed.

Add Proposed Action NOTE 2

NORTH ANNA - UNIT 1

3/4 6-4

Amendment No. 75-110, 196

Add Proposed Action NOTE 3

A.1

L.A.1

A.8

A.7

L.3

A.5

M.1

A.2

A.1

A.4

L.4

A.3

M.1

L.2

M.2

A.5

A.9

A.10

A.8

See ITS 5.0

L.6

L.1

A.5

A.6

(A.1)

ITS 3.6.2

02-09-96

ITS

CONTAINMENT SYSTEMS
CONTAINMENT AIR LOCKS
LIMITING CONDITION FOR OPERATION

3.6.2

3.6.2.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to $0.05 L_2$ at P_a greater than or equal to 44.1 psig.

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2

ACTION: or more S with one containment airlock

- 1 With one containment air lock door inoperable:
 - 1.1 Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed within 1 hour
 - 1.2 Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days. Add proposed Action A.3 NOTE
 - 1.3 Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Action A.1
Action A.2

Action A.3

Action D.1
Action D.2

Add proposed Condition B

Add proposed Action C.1

Action C.2
Action C.3

Action D.1
Action D.2

SURVEILLANCE REQUIREMENTS

4.6.2.3 Each containment air lock shall be demonstrated OPERABLE: INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1
INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2

SR 3.6.2.1 By performing leakage rate testing as required by 10 CFR 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the guidelines contained in Regulatory Guide 1.163, dated September 1995, the provisions of Specification 4.0.2 are not applicable.

The Containment Leakage Rate Testing Program

SR 3.6.2.2

At least once per refueling outage by verifying that only one door in each air lock can be opened at a time. 24 months

and exit affected components

Actions NOTE 1 Entry to repair the inner air lock door, if inoperable, is allowed.

Add proposed Actions NOTE 2

NORTH ANNA - UNIT 2

3/4 6-4

Amendment No. 62, 96, 177

Add proposed Actions NOTE 3

- (A.1)
- (L.A.1)
- (A.8)
- (A.7)
- (L.3)
- (A.5)
- (M.1)
- (A.2)
- (A.1)
- (A.4)
- (L.4)
- (A.3)
- (M.1)
- (L.2)
- (M.2)
- (A.5)
- (A.9) RAI 3.6.2-10
- (A.10) R1
- (A.8)
- (See ITS S.D) RAI 3.6.2-7
- (L.6) R1
- (L.1)
- (A.5)
- (A.6)

DISCUSSION OF CHANGES
ITS 3.6.2, CONTAINMENT AIR LOCKS

C is required when both doors in the same air lock are inoperable, consistent with the CTS requirement.

This change is acceptable because the CTS requirement to enter one Action for one inoperable door in an air lock, and another Action for two inoperable doors in an air lock, is retained in ITS using ITS usage rules. This change is designated as administrative because it does not result in technical changes to the CTS.

- A.8 CTS LCO 3.6.1.3 and Surveillance Requirement 4.6.1.3 reference specific 10 CFR 50, Appendix J, Option B requirements, and other specific leakage rate criteria. ITS LCO 3.6.2 requires that containment air locks be Operable and Surveillance Requirement 3.6.2.1 requires performance of containment air lock leakage rate testing, in accordance with the Containment Leakage Rate Testing Program. This changes CTS by referencing the appropriate 10 CFR 50, Appendix J, Option B requirements, and other specific leakage rate criteria in the Containment Leakage Rate Testing Program requirements in ITS 5.5.15.

The purpose of CTS 3.6.2 is to ensure that the structural integrity of the containment air locks will be maintained comparable to the original design standards for the life of the facility. This change is acceptable because the appropriate 10 CFR 50, Appendix J, Option B requirements, and other specific leakage rate criteria are retained in the Technical Specifications as part of ITS 5.5.15, the Containment Leakage Rate Testing Program. This change is designated as administrative because it does not result in technical changes to the CTS.

- A.9 CTS 4.6.1.3 references specific 10 CFR 50, Appendix J, Option B requirements, and other specific leakage rate criteria. ITS SR 3.6.2.1 requires performance of containment air lock leakage rate testing, in accordance with the Containment Leakage Rate Testing Program. ITS SR 3.6.2.1 Note 1 states, "An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test." This changes CTS by Adding Note 1 as a reminder that either air lock door is capable of providing a fission product barrier in the event of a DBA. ITS Changes associated with how the leakage rate criteria are addressed are addressed by DOC A.8.

RAI 3.6.2-10
R1

The purpose of CTS 3.6.2 is to ensure that the structural integrity of the containment air locks will be maintained comparable to the original design standards for the life of the facility. This change is acceptable because it provides additional assurance that the containment air lock remains considered OPERABLE with one inoperable air lock door, consistent with current requirements and practices. One inoperable door does not invalidate the test for the overall air lock leakage test because the second door is still capable of performing the safety function. This change is designated as administrative because it does not result in technical changes to the CTS.

DISCUSSION OF CHANGES
ITS 3.6.2, CONTAINMENT AIR LOCKS

- A.10 CTS 4.6.1.3 references specific 10 CFR 50, Appendix J, Option B requirements, and other specific leakage rate criteria. ITS SR 3.6.2.1 requires performance of containment air lock leakage rate testing, in accordance with the Containment Leakage Rate Testing Program. ITS SR 3.6.2.1 Note 2 states, "Results shall be evaluated against acceptance criteria applicable to SR 3.6.1.1." This changes CTS by adding Note 2 as a reminder that the air lock leakage must be accounted for in determining the combined Type B and C containment leakage rate. ITS Changes associated with how the leakage rate criteria are addressed are addressed by DOC A.8.

RAE
3.6.2-10
R1

The purpose of CTS 3.6.1.3 is to ensure that the structural integrity of the containment air locks will be maintained comparable to the original design standards for the life of the facility. This change is acceptable because it provides additional assurance that the containment air lock leakage is properly accounted for in determining the combined Type B and C containment leakage rate, consistent with current requirements and practices. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

- M.1 CTS 3.6.1.3.a.1 and CTS 3.6.1.3.b do not include a Completion Time for the action to maintain at least one containment air lock closed when a containment air lock door or a containment air lock is inoperable. ITS 3.6.2 Required Actions A.1, B.1, and C.2 require verifying the OPERABLE Containment air lock door closed in the affected air lock within 1 hour when the Conditions are entered. This changes CTS by specifying a Completion Time of 1 hour for verifying an OPERABLE air lock door is closed in an inoperable air lock.

The purpose of CTS 3.6.1.3.a.1 and CTS 3.6.1.3.b is to ensure that at least one air lock door is closed in the affected air lock when an air lock door or air lock is inoperable. This change is acceptable because it provides a specific Completion Time within which to perform the Action, which is consistent with the Completion Time to restore an inoperable containment to OPERABLE status. This change is considered more restrictive because it provides a new Completion Time for an Action.

- M.2 CTS 3.6.1.3 does not contain an Action to, "initiate action to evaluate overall containment leakage rate." ITS 3.6.2 Required Action C.1 requires initiation of action to evaluate overall containment leakage rate per ITS 3.6.1 immediately when one or more containment air locks are inoperable for reasons other than Condition A or B. This changes CTS by adding a new Required Action.

The purpose of ITS 3.6.2 Required Action C.1 is to verify that the overall leakage rate aspect of containment OPERABILITY is met in the event an airlock is inoperable for a reason other than one door or an interlock mechanism being inoperable. This change is acceptable because if the inoperability is something that could cause the