A.10 CTS 4.6.3.1.1.a requires testing of each containment isolation valve that is a weight or spring loaded check valve testable during unit operation every 92 days. The ITS does not contain this Surveillance. This changes the CTS by eliminating this Surveillance.

This change is acceptable because the technical requirements have not changed. North Anna does not contain any containment isolation valves that are weight or spring loaded check valves which are testable during unit operation. Therefore, this surveillance is never performed. This change is designated as administrative because it does not result in technical changes to the CTS.

A.11 CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open…" ITS Conditions A and B Notes state, "Only applicable to penetration flow paths with two containment isolation valves." ITS Condition C Note states, "Only applicable to penetration flow paths with only one containment isolation valve and a closed system." ITS Condition ITS 3.6.3 Required Actions A.1 and C.1 require the associated flow path be isolated by one of the means specified with one or more penetration flow paths with one containment isolation valve inoperable. ITS 3.6.3 Required Actions A.1 and C.1 both assume the other isolation valve or closed system are OPERABLE for the isolation function. If two valves in a penetration flow path with two containment isolation valves are inoperable, Required Action B.1 requires the penetration be isolated within one hour, or Condition D is entered, requiring the unit be placed in MODE 3 within 6 hours, and MODE 5 within 36 hours. In a penetration flow path with one containment isolation valve and a closed system, where the containment isolation valve and the closed system were not capable of performing the isolation function, ITS LCO 3.0.3 would be entered. This changes CTS by incorporating the concept of assuring that the second means of containment isolation for a penetration flow path is OPERABLE into the Conditions and Required Actions associated with ITS 3.6.3. RAI 3.6.3-16 R1

This change is acceptable because when one means of isolating a containment flow path is inoperable, the other must be OPERABLE, or the ITS requires Required Actions be taken for two inoperable means of isolating a containment flow path, rather than allowing the Completion Times associated with one inoperable means of isolating a containment flow path. This retains the CTS 3.6.3.1 concept of maintaining at least one isolation valve OPERABLE in each affected penetration that is open when one or more isolation valves are inoperable. This change is designated as administrative because it does not result in technical changes to the CTS.

A.12 CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." The Applicability is MODES 1, 2, 3, and 4. The Frequency for ITS SR 3.6.3.4 states, "Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken. This changes the CTS by adopting the ISTS Frequency format for such a Surveillance Requirement, clarifying RAI 3.6.1-5 3.6.3-2 R1

that it is required to be performed prior to entering the MODE of Applicability each time the containment vacuum has been broken.

RAI 3.6.1-5 3.6.3-2 R1

This change is acceptable because it clarifies the existing requirement, in ISTS format, to test the relevant valves prior to entering the MODE of Applicability each time the containment vacuum has been broken. This change is designated as administrative because it does not result in technical changes to the CTS.

A.13 CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." ITS SR 3.6.3.4 states, "Perform leakage rate testing for containment purge valves with resilient seals." This changes CTS by clarifying that the valves being tested as part of the Surveillance Requirement are those with "resilient seals." The changes moving some of the system description to the Bases is addressed by DOC LA.4.

This change is acceptable because it clarifies that the valves addressed by the Surveillance are those with resilient seals, which are the valves described by the phrase, "...butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.6.3.1 and CTS 3.6.5.1 do not contain a requirement to periodically verify an affected penetration flow path is isolated after it is isolated due to one inoperable containment isolation valve. ITS 3.6.3 Required Action A.2 requires the affected penetration flow path be verified isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment. ITS 3.6.3, Required Action C.2, requires the affected penetration flow path to be verified isolated every 31 days. ITS 3.6.3 Required Actions A.2 and C.2 include two NOTES. These NOTES allow isolation devices in high radiation areas and isolation devices that are locked, sealed, or otherwise secured to be verified by administrative means. This changes CTS by a adding new Required Actions to the Actions.

The purpose of CTS 3.6.3.1 Actions is to ensure that containment penetrations required to be isolated following an accident, but are no longer capable of being automatically isolated, are isolated in case an event occurs. This change is acceptable because the added Required Action provides additional assurance that the flow paths required to be isolated are isolated. This change is considered more restrictive because a new Required Action is added.

valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by moving the detail concerning which signals are used to conduct the Surveillance Requirement to the Bases. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11. Changes associated with allowing the use of an actual signal for conducting the Surveillance Requirement are addressed by DOC L.12. RAI 3.6.3-20 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to verify that the required valve automatically actuate. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.4 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." ITS SR 3.6.3.4 states, "Perform leakage rate testing for containment purge valves with resilient seals." This changes the CTS by moving the details specifically naming butterfly valves and the containment vacuum air ejector line to the Bases. RAI 3.6.1-5 3.6.3-2 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to perform the specified leakage rate testing for containment purge valves with resilient seals. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

<u>LESS RESTRICTIVE CHANGES</u>

A.1

ITS 5.0

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

See ITS 3.6.1

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1.

See ITS 3.6.3

b. By verifying that each containment air lock is ~~OPERABLE per Specification 3.6.1.3.~~

See ITS 3.6.1

c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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.

5.5.15.b
5.5.15.d.1
5.5.15.a

LA.12

RAI 3.6.1-5 3.6.3-2 R1

d. Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line.

See ITS 3.6.3

* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days.

See ITS 3.6.3

A.1

ITS 5.0

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

See ITS 3.6.1

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1.

See ITS 3.6.3

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3.

See ITS 3.6.2

c. After each ~~closing~~ of the equipment hatch, ~~by~~ leak rate testing ~~the~~ equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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.

5.5.15.b
5.5.15.d.1
5.5.15.a

LA.12

RAI 3.6.1-5 3.6.3-2 R1

d. Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line.

See ITS 3.6.3

* Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days.

See ITS 3.6.3

A.25 CTS 6.9.1.4 regarding annual reports states, "The initial report shall be submitted prior to March 1 of the year following initial criticality." The ITS does not include such a statement. This changes the CTS by deleting a requirement for report submissions that have already occurred and will not be repeated.

This change is acceptable because the one time report requirement has already been met and no longer needs to be specified. This change is designated administrative because it does not result in technical changes to the CTS.

A.26 Not Used.

RAI 3.6.3-2 3.6.1-5 R1

A.27 CTS 6.9.1.7.e.2f , References for the Core Operating Limits Report, states, "WCAP-12610, "VANTAGE+FUEL ASSEMBLY REPORT," June 1990 (W Proprietary)." ITS 5.6.5.b.2f states, "VANTAGE+FUEL ASSEMBLY-REFERENCE CORE REPORT." This changes the CTS by correcting the reference to the title of WCAP-12610. Regarding deletion of, "June 1990 (W Proprietary)," see DOC LA.9.

This change is acceptable because it corrects the title of a reference used, without changing the reference. This change is designated administrative because it does not result in technical changes to the CTS.

A.28 CTS 6.2.4.1 states, "The Shift Technical Advisor shall serve in an advisory capacity to Shift Supervisor on matters..." CTS 6.3.1.2 states, "Incumbents in the positions of Shift Supervisor, Assistant Shift Supervisor (SRO), Control Room Operator – Nuclear (RO), and Shift Technical Advisor, shall meet or exceed the requirements of 10 CFR 55.59(c) and 55.31(a)(4)." ITS 5.2.2.f states, "An individual shall provide advisory technical support to the unit operations shift crew..." ITS 5.3.1 states, "The SS, Assistant SS, Control Room Operator – Nuclear, and individual providing advisory technical support to the unit operations shift crew, shall meet or exceed the requirements of 10 CFR 55.59(c) and 55.31(a)(4)." This changes the CTS by removing the Shift Technical Advisor title, and replacing the term Shift Supervisor with unit operations shift crew, though the requirement for the person with the specified responsibility remains the same.

This change is acceptable because the individual assigned to the responsibilities described still carries out the same tasks. The support provided is for the benefit of the unit operations shift crew, as well as the Shift Supervisor. This change clarifies that the assigned individual may provide the support directly to the Shift Supervisor or other members of the unit operations shift crew, but the result will be support for the crew as a whole in either case. This change is designated administrative because it does not result in technical changes to the CTS.

A.29 ITS 5.3.2 states, "For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the references for the COLR and only NRC-approved methodologies may be used. Also, this change is acceptable because the removed information will be adequately controlled in the COLR. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.10 CTS 6.8.4.f, "Radiological Environmental Monitoring Program," describes a program to monitor the radiation and radionuclides in the environs of the plant. ITS 5.0 does not require such a program. This changes the CTS by moving the requirements for the Radiological Environmental Monitoring Program to the ODCM.

The purpose of CTS 6.8.4.f is to provide representative measurements of radioactivity in the highest potential exposure pathways, and verification of the accuracy of the effluent monitoring program. The removal of the requirement for this program from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. ITS 5.6.2 still requires an annual report of the results of the "Radiological Environmental Monitoring Program." Also, this change is acceptable because these types of procedural details will be adequately controlled in the ODCM. This change is designated as a less restrictive, removal of detail, because the requirements for a program are being removed from the Technical Specifications.

LA.11 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.4.10.1.2 states, "In addition to the requirements of Specification 4.0.5, at least one third of the main member to main member welds, joining A572 material, in the steam generator supports, shall be visually examined during each 40 month inspection interval." ITS 5.5.7, "Inservice Testing Program," specifies the controls for inservice testing of ASME Code Class 1, 2, and 3 components. This changes the CTS by moving these requirements to the Inservice Testing Program.

The removal of these details for performing surveillance requirements from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirements for an Inservice Testing Program. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ISI/IST Program. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications.

LA.12 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.6.1.1.c states, "After each closing of the equipment RAI 3.6.1-5 R1

as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.5 Not Used

R1
RAI
3.6.2-7

L.6 (*Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.1.3.b, which requires testing of the containment airlock interlock once per refueling outage. For North Anna, a refueling outage testing frequency is equivalent to 18 months. ITS SR 3.6.2.2 requires testing of the containment airlock interlock every 24 months. This changes the CTS by decreasing the Frequency for the containment airlock interlock test from every 18 months to every 24 months.

The purpose of ITS SR 3.6.2.2 is to ensure that the containment airlock interlock prevents more than one of the containment airlock doors from opening at a time. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. Performance of this Surveillance at power is undesirable because a failure of the SR during testing would lead to a loss of containment integrity and, for a subatmospheric containment, risk of personnel injury. In addition, the interlock is not normally challenged during containment airlock use as administrative procedures require strict adherence to single door opening. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

A.1

ITS

ITS 3.6.2

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.1, LA.1

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_a at P_a greater than or equal to 44.1 psig. — A.8

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2 — A.7, L.3, A.5 — RAI 3.6.2-2, 3.6.2-6

ACTION:

a. With one containment air lock door inoperable: — M.1 — R1

Action A.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. — A.2

Action A.2 — A.1

Action A.3 — 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 — A.4, L.4

Action D.1, Action D.2 — 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. — A.3

Add Proposed Condition B — 4. The provisions of Specification 3.0.4 are not applicable. — M.1

Add proposed Action C.1, Action C.2, Action C.3, Action D.1, Action D.2 — b. With the 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. — L.2, M.2, A.5

(handwritten insertions: "or more", "s with one containment air lock", "within 1 hour", "within 1 hour", "interlock mechanism", "one or more", "s")

SURVEILLANCE REQUIREMENTS

INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 — A.9

INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2 — A.10 — RAI 3.6.2-4(?) R1

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 — a. 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. — A.8, See ITS 5.0 — R1 RAI 3.6.2-7

the Containment Leakage Rate Testing Program

SR 3.6.2.2 — b. At least once per refueling outage by verifying that only one door in each air lock can be opened at a time. (24 months) — L.6 — R1

Actions NOTE 1 — * Entry to repair the inner air lock door, if inoperable, is allowed. (and exit, affected, components) — L.1

Add Proposed Actions NOTE 2 — A.5

Add proposed Actions NOTE 3 — A.6

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(A.1)

ITS

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

A.1

3.6.2 3.6.~~1~~.3 ~~Each~~ Two containment air lock(s) 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 LA.1

b. An overall air lock leakage rate of less than or equal to 0.05 L_a at P_a greater than or equal to 44.1 psig. A.8

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2 A.7 L.3

ACTION: A.5

~~a.~~ With one or more containment air lock(s with one containment airlock) door inoperable: M.1

Action A.1 Action A.2 ~~1.~~ Maintain at least the OPERABLE air lock door closed within 1 hour and ~~either restore the inoperable air lock door to OPERABLE status~~ within 24 hours ~~or~~ lock the OPERABLE air lock door closed. A.2 A.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 A.4 L.4

Action A.3

Action D.1 Action D.2 ~~3.~~ Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.3

~~4.~~ ~~The provisions of Specification 3.0.4 are not applicable.~~ M.1

Add proposed Condition B

Add proposed Action C.1

Action C.2 Action C.3 Action D.1 Action D.2 ~~b.~~ With ~~a~~ one or more containment air lock(s) inoperable, except as the result of an inoperable air lock interlock mechanism or door, maintain at least one air lock door closed within 1 hour; 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. L.2 M.2 A.5

SURVEILLANCE REQUIREMENTS ← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 ← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2 A.9 A.10 | RAI 3.6.2-10 R1

4.6.~~1~~.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 ~~a.~~ 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 A.8 (See ITS 5.0) | RAI 3.6.2-7 R1

SR 3.6.2.2 ~~b.~~ At least once per ~~refueling outage~~ 24 months by verifying that only one door in each air lock can be opened at a time. L6

Actions NOTE 1 ~~*~~ Entry and exit to repair the ~~inner~~ affected air lock ~~door~~ components, if inoperable, is allowed. L.1

Add proposed Actions NOTE 2 A.5

Add proposed Actions NOTE 3 A.6

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.

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. RAI 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

3.6.3 Containment Isolation Valves

17.	DOC A.8 (CTS 1.0)
(3.6.3-1)	CTS 1.6.1
	ITS SRs 3.6.3.1, 3.6.3.2, 3.6.3.3, 3.6.3.4 and Associated Bases

NRC RAI: See Comment Number 3.6.1-1. **Comment:** See Comment Number 3.6.1-1.

Response: The Company will take the action proposed in the Comment.

CTS 1.6.1 is marked as part of ITS 3.6.3 adopting the requirement using DOC A.1. Requirements for CTS 1.6.1 are included as being related to ITS SR 3.6.3.1, SR 3.6.3.2, SR 3.6.3.3, and 3.6.3.4.

CTS 1.6.3 is remarked as part of ITS 3.6.2 adopting the requirement using DOC A.1. Requirements for CTS 1.6.3 have been marked as part of ITS 3.6.2.

CTS 1.6.4 is remarked as part of ITS SR 3.6.1.1 adopting the requirement using DOC A.1. ISTS 3.6.1.2 is not adopted.

An LA DOC is not used because the material is retained in the ITS, not moved to another document. DOC A.1 is used instead.

CTS Pages in Section 1.0 are marked to describe to which ITS sections the respective requirements are being moved.

For changes, see RAI 3.6.1-1.

3.6.3 Containment Isolation Valves

18. (3.6.3-2)

DOC A.1
JFD 3
Bases JFD 2
CTS 4.6.1.1.d
STS 3.6.3, ACTIONS A, B, D, and E, SR 3.6.3.7 and Associated Bases
ITS 3.6.3, ACTIONS A, and B and Associated Bases

NRC RAI: CTS 4.6.1.1.d requires specific leak rate tests for the butterfly isolation valves in the containment purge and the containment vacuum ejector lines. The CTS markup of CTS 4.6.1.1.d in CTS 3.6 refers the reviewer to ITS 5.5.15 for changes associated with this specification. The CTS markup for ITS 5.5.15 relocates this specification out of the ITS to the Containment Leakage Rate Testing Program. This change is justified by DOC A.26 (CTS 6.0). This change is incorrect. ITS 5.5.15 does not contain the specifics of this specification; the specifics are contained in the body of the program, which is outside of TS. Thus the change, if acceptable, would be a Less Restrictive (LA) change. However, the staff concludes that this specification needs to be retained in the North Anna ITS. Amendments 196 and 177 to the North Anna Unit 1 and Unit 2 TS respectively, dated February 9, 1996, implemented 10 CFR 50 Appendix J, Option B. The amendment change approved a Containment Leakage Rate Testing Program based on 10 CFR 50 Appendix J, Option B that was outside of the CTS, and did not include this specification in that program, but retained it in CTS 4.6.1.1.d. Since this specification contained specific testing requirements not contained in 10 CFR 50 Appendix J, Option B, it should be retained in the ITS as an SR in ITS 3.6.3. The STS does contain an SR on purge valve leakage. TSTF 52 Rev. 3 did not remove or relocate the purge valve leakage SR (STS SR 3.6.3.7). In fact, STS SR 3.6.3.7 was retained because the testing requirements went beyond the test requirements of 10 CFR 50 Appendix J. This STS SR deals with leakage testing of purge valves with resilient seals. It would seem that CTS 4.6.1.1.d was retained because the valves had resilient seals, but this is not stated in CTS 4.6.1.1.d, the Bases for ITS 3.6.3, or in the DOCs and JFDs. If these valves do have resilient seals, then CTS 4.6.1.1.d needs to be retained in the ITS. Even if they do not have resilient seals, the specification needs to be retained because of the special testing requirements which go beyond the requirements of 10 CFR 50 Appendix J. Thus, STS SR 3.6.3.7 needs to be used or modified to reflect plant-specific testing requirements. Since this STS SR is being added to the ITS, an appropriate ACTION needs to be provided for when the SR is not met. This ACTION would be STS 3.6.3 ACTION D or E as modified by TSTF-207 Rev. 5 and any plant-specific requirements. This may result in modifications/changes to CTS 3.6.1.1 ACTION. In addition, ITS 3.6.3 Conditions A and B will need to be revised to conform to TSTF-207, Rev. 5. **Comment:** Revise the CTS/ITS markup to retain CTS 4.6.1.1.d and provide the appropriate discussions and justifications for all the changes associated with this SR retention.

Response: The Company will take the action proposed in the Comment, with certain modifications.

The CTS 4.6.1.1.d markup is modified, adopting the requirement as modified and justified by DOC A.12, A.13, and LA.4, adopting ISTS SR 3.6.3.7, as modified and justified by JFD 10.

ITS 5.0 markups are modified, DOC A.26 is deleted, and DOC LA.12 is added to reflect these changes.

The ITS Condition to be entered when ITS SR 3.6.3.7 is not met will be Condition A or B, depending on whether one or two valves in a penetration are inoperable. ISTS ACTIONS D and E for the purge valves are not necessary because leakage in the purge valves will be treated in the same manner as leakage or inoperability of other containment isolation valves, consistent with the current licensing basis.

The shield building bypass related portions of ISTS ACTIONS A, B and D are not adopted because NAPS does not have a shield building.

The purge valve related portions of ISTS ACTIONS A, B and D are not adopted because the Required Actions and Completion Times for the purge valves are the same as for other containment isolation valves.

ISTS ACTION E is not adopted because the Required Actions are the same as those for ISTS ACTION A, except the Required Action E.1 and E.2 Completion times are 24 hours, and ISTS Required Action E.3 requires that ISTS SR 3.6.2.7 be performed once per [92] days for the resilient seal purge valves closed to comply with Required Action E.1. ISTS SR 3.6.2.7 will not be performed at NAPS.

JFD 3 is modified to only address shield building bypass portions of ISTS 3.6.3 ACTIONS A, B and D.

JFD 7 is added to address not adopting the purge valve portions of ISTS 3.6.3 ACTIONS A, B and D, and ISTS 3.6.3 ACTION E.

TSTF-207 Rev 5 will be marked into the ISTS markup. However, because ISTS 3.6.3 ACTIONS D and E are not adopted, and the bracketed term "or more" in relation to isolation valves is not adopted, these changes to the ITS package will not result in a change to ITS 3.6.3.

JFD 8 addresses not adopting the term "or more."

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.6.3.3	Verify the isolation time of each automatic power operated containment isolation valve is within limits.	In accordance with the Inservice Testing Program
SR 3.6.3.4	Perform leakage rate testing for containment purge valves with resilient seals.	Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken RAI 3.6.3-2 RAI 3.6.1-5 R1
SR 3.6.3.5	Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	18 months RAI 3.6.3-2 RAI 3.6.1-5 R1
SR 3.6.3.6	Cycle each weight or spring loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is < 1.2 psid and opens when the differential pressure in the direction of flow is ≥ 1.2 psid and < 5.0 psid.	18 months RAI 3.6.3-2 RAI 3.6.1-5 R1

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.4

RAI 3.6.3-2 RAI 3.6.1-5 R1

For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, Option B, is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types.

This SR must be performed prior to entering MODE 4 from MODE 5 after containment vacuum has been broken. This Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). This Frequency will ensure that each time these valves are cycled they will be leak tested.

SR 3.6.3.5

Automatic power operated containment isolation valves close on a containment isolation signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic power operated containment isolation valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.6.3.6

RAI 3.6.3-2 RAI 3.6.1-5 R1

The check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.6 (continued)

these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation. RAI 3.6.3-2 RAI 3.6.1-5 R1

REFERENCES

1. UFSAR, Chapter 15.
2. Technical Requirements Manual.
3. Standard Review Plan 6.2.4.
4. UFSAR, Section 6.2.4.2. RAI 3.6.3-14 R1

CTS

3.6 CONTAINMENT SYSTEMS

3.6.3 Containment Isolation Valves (Atmospheric, Subatmospheric, Ice Condenser, and Dual) ①

3.6.3.1 LCO 3.6.3 Each containment isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction

ACTIONS

36 and exhaust 5

-----NOTES-----

3.8.A.2 footnote "*" 1. Penetration flow path(s) [except for [42] inch purge valve flow paths] may be unisolated intermittently under administrative controls. ②

ACTION 2. Separate Condition entry is allowed for each penetration flow path.

New 3. Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves. for a penetration flow path ⑥

New 4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when ~~isolation valve~~ leakage results in exceeding the overall containment leakage rate acceptance criteria.

CONDITION	REQUIRED ACTION	COMPLETION TIME
Action b Action c A. -----NOTE----- Only applicable to penetration flow paths with two ~~[or more]~~ containment isolation valves. ----- One or more penetration flow paths with one containment isolation valve inoperable ~~[except for purge valve or shield building bypass leakage not within limit]~~ for reasons other than Condition[s] D [and E].	A.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. AND	4 hours TSTF-287 ⑧ RAI 3.6.3-2 R1 ③ TSTF-207 ⑦ (continued)

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ACTIONS

	CONDITION	REQUIRED ACTION	COMPLETION TIME	
NEW	A. (continued) 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.	A.2 --------NOTE-------- 5 1. Isolation devices in high radiation areas may be verified by use of administrative means. ------------------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment	TSTF-269
NEW	B. --------NOTE-------- Only applicable to penetration flow paths with two ~~[or more]~~ containment isolation valves. ------------------- One or more penetration flow paths with two ~~[or more]~~ containment isolation valves inoperable ~~[except for purge valve or shield building bypass leakage not within limit]~~ for reasons other than Condition[s] ~~D [and E]~~.	B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	1 hour	TSTF-207 8 RAI 3.6.3-2 R1 3 TSTF-207 7

(continued)

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ACTIONS (continued)

	CONDITION	REQUIRED ACTION	COMPLETION TIME
Action b Action c	C. ---------NOTE--------- Only applicable to penetration flow paths with only one containment isolation valve and a closed system. -------------------- One or more penetration flow paths with one containment isolation valve inoperable.	C.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	~~[4]~~ 72 hours TSTF-30 2
NEW	2. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.	AND C.2 --------NOTE-------- 5 1. Isolation devices in high radiation areas may be verified by use of administrative means. -------------------- Verify the affected penetration flow path is isolated.	Once per 31 days TSTF-269
	One or more ~~[or purge valve leakage]~~	~~AND 24 hours for purge valve leakage~~	for shield building bypass leakage TSTF 207 7 RAI 3.6.3-2 R1
	D. Shield building bypass leakage not within limit.	D.1 Restore leakage within limit.	4 hours 3
	~~E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.~~	~~E.1 Isolate the affected penetration flow path by use of at least one [closed and de-activated automatic valve, closed manual valve, or blind flange].~~ ~~AND~~	~~24 hours~~ 7 RAI 3.6.3-2 R1

(continued)

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①

CTS

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued)	E.2 --------NOTE-------- Isolation devices in high radiation areas may be verified by use of administrative means. -------------------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
	AND E.3 Perform SR 3.6.3.7 for the resilient seal purge valves closed to comply with Required Action E.1.	Once per [92] days
Action d — D F. Required Action and associated Completion Time not met.	D F.1 Be in MODE 3. AND F.2 Be in MODE 5.	6 hours ⑦ 36 hours ⑦

⑦ RAI 3.6.3-2 R1

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SURVEILLANCE REQUIREMENTS (continued)

CTS	SURVEILLANCE		FREQUENCY	
	SR 3.6.3.~~7~~ 4	Perform leakage rate testing for containment purge valves with resilient seals.	~~184 days AND Within 92 days after opening the valve~~ Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken	5 10 2 RAI 3.6.3-2 3.6.1-5 R1
4.6.3.1.2.a,b&c	SR 3.6.3.~~8~~ 5	Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	~~[~~18~~]~~ months	4 5 2
4.6.3.1.2.d	SR 3.6.3.~~9~~ 6	Cycle each weight or spring loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ ~~[~~1.2~~]~~ psid and opens when the differential pressure in the direction of flow is ≥ ~~[~~1.2~~]~~ psid and < ~~[~~5.0~~]~~ psid.	18 months	5 2 2
	~~SR 3.6.3.10~~	~~Verify each [ ] inch containment purge valve is blocked to restrict the valve from opening > [50]%.~~	~~[18] months~~	9 RAI 3.6.3-12 R1

(continued)

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(2)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.~~7~~ (4) (2)

RAI 3.6.3-2 3.6.1-4 3.6.1-5 R1

For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, Option B is required to ensure OPERABILITY. TSTF-52 Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. ~~Based on this observation and the importance of maintaining this penetration leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. 3).~~ (2) (3)

~~Additionally,~~ this SR must be performed ~~within 92 days after opening the valve. The 92 day~~ prior to entering MODE 4 from MODE 5 after containment vacuum has been broken. This Frequency will ensure that each time these valves are cycled they will be leak tested. Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). ~~Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.~~ (2) (2)

SR 3.6.3.~~8~~ (5) (2)

Automatic power operated containment isolation valves close on a containment isolation signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic containment isolation valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a ~~plant~~ unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. (3) (1) (3)

(continued)

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(2)

BASES

RAI 3.6.3-2 3.6.1-5

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.6.3.~~9~~ 6

In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.~~9~~ (6) verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation.]

9 (2)

SR 3.6.3.10

[Reviewer's Note: This SR is only required for those units with resilient seal purge valves allowed to be open during [MODE 1, 2, 3, or 4] and having blocking devices on the valves that are not permanently installed.]

Verifying that each [42] inch containment purge valve is blocked to restrict opening to ≤ [50]% is required to ensure that the valves can close under DBA conditions within the times assumed in the analyses of References 1 and 2. If a LOCA occurs, the purge valves must close to maintain containment leakage within the values assumed in the accident analysis. At other times when purge valves are required to be capable of closing (e.g., during movement of irradiated fuel assemblies), pressurization concerns are not present, thus the purge valves can be fully open. The 18 month Frequency is appropriate because the blocking devices are typically removed only during a refueling outage.

(2)

SR 3.6.3.11

This SR ensures that the combined leakage rate of all shield building bypass leakage paths is less than or equal to the specified leakage rate. This provides assurance that the assumptions in the safety analysis are met. The leakage rate of each bypass leakage path is assumed to be the

(2)

(continued)

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SURVEILLANCE REQUIREMENTS (Continued)

~~b.~~ Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time. L.1

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by: LA.1

SR 3.6.3.5 ~~a.~~ Verifying that on a Phase A containment isolation actuator test signal, each Phase A isolation valve actuates to its isolation position. L.12 RAI 3.6.3-2 3.6.3-20 R1

~~b.~~ Verifying that on a Phase B containment isolation actuation test signal, each Phase B isolation valve actuates to its isolation position. LA.3

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <see ITS 3.9.4>

SR 3.6.3.6 ~~d.~~ Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 ~~4.6.3.1.3~~ The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5 in accordance with the Inservice Testing Program not locked, sealed or otherwise secured in position, L.13 RAI 3.6.3-21 R1 L.11 RAI 3.6.3-19 R1 A.7

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. <See ITS 3.6.1>

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated: <See ITS 3.6.1>

SR 3.6.3.1 SR 3.6.3.2 a. INSERT Proposed SR 3.6.3.1 Note At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are locked, sealed, or otherwise secured, or are open under administrative control as permitted by Specification 3.6.3.1. L.5 L.6 RAI 3.6.3-9

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3. <See ITS 3.6.1> R1

c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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. <See ITS 5.0>

SR 3.6.3.4 d. ~~Each time containment integrity is established~~ after vacuum has been broken by pressure testing the butterfly isolation valves with resilient seals in the containment purge lines and the containment vacuum ejector line. Prior to entering MODE 4 from MODE 5 A.12 LA.4 A.13 RAI 3.6.3-2 3.6.1-5 R1

SR 3.6.3.1 SR 3.6.3.2 * Except valves, blind flanges, not and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days. L.7 RAI 3.6.3-9 R1

INSERT Proposed SR 3.6.3.2 Note L.5

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE ~~during the COLD SHUTDOWN or REFUELING MODE~~ at least once per 18 months by: LA.1

L.12

SR 3.6.3.5

a. Verifying that on a ~~Phase A containment isolation~~ actuator test signal, each ~~Phase A~~ isolation valve actuates to its isolation position. LA.3 RAI 3.6.3-20 3.6.3-2 R1

b. Verifying that on a ~~Phase B containment isolation~~ actuation test signal, each ~~Phase B~~ isolation valve actuates to its isolation position.

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <See ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 4.6.3.1.3 The isolation time of each power operated ~~or~~ automatic not locked, sealed or otherwise secured in position containment isolation valve shall be determined to be within its limit when tested ~~pursuant to Specification 4.0.5.~~ in accordance with the Inservice Testing Program L.13 RAI 3.6.3-21 R1

L.11 RAI 3.6.3-19 R1

A.7

A.1

ITS 3.6.3

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

<See ITS 3.6.1>

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated: <See ITS 3.6.1>

SR 3.6.3.1
SR 3.6.3.2

INSERT Proposed SR 3.6.3.1 Note

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1. locked, sealed, or otherwise secured, or L.5 L.6 RAI 3.6.3-9 R1

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3. <See ITS 3.6.1>

c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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. <See ITS 5.0>

SR 3.6.3.4

d. ~~Each time containment integrity is established~~ after vacuum has been broken by pressure testing the ~~butterfly~~ isolation valves with resilient seals in the containment purge lines and the containment ~~vacuum ejector line~~. Prior to entering MODE 4 from MODE 5 A.12 LA.4 A.13 RAI 3.6.3-2 3.6.1-5 R1

L.7 RAI 3.6.3-9

SR 3.6.3.1
SR 3.6.3.2

* Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are not locked sealed or otherwise sealed in the closed position. ~~These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days.~~ R1

Insert proposed SR 3.6.3.2 Note

L.5

A.10 CTS 4.6.3.1.1.a requires testing of each containment isolation valve that is a weight or spring loaded check valve testable during unit operation every 92 days. The ITS does not contain this Surveillance. This changes the CTS by eliminating this Surveillance.

This change is acceptable because the technical requirements have not changed. North Anna does not contain any containment isolation valves that are weight or spring loaded check valves which are testable during unit operation. Therefore, this surveillance is never performed. This change is designated as administrative because it does not result in technical changes to the CTS.

A.11 CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open..." ITS Conditions A and B Notes state, "Only applicable to penetration flow paths with two containment isolation valves." ITS Condition C Note states, "Only applicable to penetration flow paths with only one containment isolation valve and a closed system." ITS Condition ITS 3.6.3 Required Actions A.1 and C.1 require the associated flow path be isolated by one of the means specified with one or more penetration flow paths with one containment isolation valve inoperable. ITS 3.6.3 Required Actions A.1 and C.1 both assume the other isolation valve or closed system are OPERABLE for the isolation function. If two valves in a penetration flow path with two containment isolation valves are inoperable, Required Action B.1 requires the penetration be isolated within one hour, or Condition D is entered, requiring the unit be placed in MODE 3 within 6 hours, and MODE 5 within 36 hours. In a penetration flow path with one containment isolation valve and a closed system, where the containment isolation valve and the closed system were not capable of performing the isolation function, ITS LCO 3.0.3 would be entered. This changes CTS by incorporating the concept of assuring that the second means of containment isolation for a penetration flow path is OPERABLE into the Conditions and Required Actions associated with ITS 3.6.3. RAI 3.6.3-16 R1

This change is acceptable because when one means of isolating a containment flow path is inoperable, the other must be OPERABLE, or the ITS requires Required Actions be taken for two inoperable means of isolating a containment flow path, rather than allowing the Completion Times associated with one inoperable means of isolating a containment flow path. This retains the CTS 3.6.3.1 concept of maintaining at least one isolation valve OPERABLE in each affected penetration that is open when one or more isolation valves are inoperable. This change is designated as administrative because it does not result in technical changes to the CTS.

A.12 CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." The Applicability is MODES 1, 2, 3, and 4. The Frequency for ITS SR 3.6.3.4 states, "Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken. This changes the CTS by adopting the ISTS Frequency format for such a Surveillance Requirement, clarifying RAI 3.6.1-5 3.6.3-2 R1

that it is required to be performed prior to entering the MODE of Applicability each time the containment vacuum has been broken.

RAI 3.6.1-5 3.6.3-2 R1

This change is acceptable because it clarifies the existing requirement, in ISTS format, to test the relevant valves prior to entering the MODE of Applicability each time the containment vacuum has been broken. This change is designated as administrative because it does not result in technical changes to the CTS.

A.13 CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." ITS SR 3.6.3.4 states, "Perform leakage rate testing for containment purge valves with resilient seals." This changes CTS by clarifying that the valves being tested as part of the Surveillance Requirement are those with "resilient seals." The changes moving some of the system description to the Bases is addressed by DOC LA.4.

This change is acceptable because it clarifies that the valves addressed by the Surveillance are those with resilient seals, which are the valves described by the phrase, "...butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.6.3.1 and CTS 3.6.5.1 do not contain a requirement to periodically verify an affected penetration flow path is isolated after it is isolated due to one inoperable containment isolation valve. ITS 3.6.3 Required Action A.2 requires the affected penetration flow path be verified isolated once per 31 days for isolation devices outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment. ITS 3.6.3, Required Action C.2, requires the affected penetration flow path to be verified isolated every 31 days. ITS 3.6.3 Required Actions A.2 and C.2 include two NOTES. These NOTES allow isolation devices in high radiation areas and isolation devices that are locked, sealed, or otherwise secured to be verified by administrative means. This changes CTS by a adding new Required Actions to the Actions.

The purpose of CTS 3.6.3.1 Actions is to ensure that containment penetrations required to be isolated following an accident, but are no longer capable of being automatically isolated, are isolated in case an event occurs. This change is acceptable because the added Required Action provides additional assurance that the flow paths required to be isolated are isolated. This change is considered more restrictive because a new Required Action is added.

valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by moving the detail concerning which signals are used to conduct the Surveillance Requirement to the Bases. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11. Changes associated with allowing the use of an actual signal for conducting the Surveillance Requirement are addressed by DOC L.12. RAI 3.6.3-20 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to verify that the required valve automatically actuate. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.4 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." ITS SR 3.6.3.4 states, "Perform leakage rate testing for containment purge valves with resilient seals." This changes the CTS by moving the details specifically naming butterfly valves and the containment vacuum air ejector line to the Bases. RAI 3.6.1-5 3.6.3-2 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to perform the specified leakage rate testing for containment purge valves with resilient seals. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

<u>LESS RESTRICTIVE CHANGES</u>

(A.1)

ITS 5.0

ITS

02-09-96

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

<See ITS 3.6.1>

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1. <See ITS 3.6.3>

b. By verifying that each containment air lock is ~~OPERABLE per Specification 3.6.1.3.~~ <See ITS 3.6.1>

5.5.15.b c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated
5.5.15.d.1 against the criteria of Specification 3.6.1.2.b as required by 10 CFR 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the
5.5.15.a guidelines contained in Regulatory Guide 1.163, dated September 1995. LA.12 RAI 3.6.1-5 3.6.3-2 R1

d. Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line. <See ITS 3.6.3>

* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days. <See ITS 3.6.3>

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

<See ITS 3.6.1>

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1. <See ITS 3.6.3>

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3. <See ITS 3.6.2>

5.5.15.b
5.5.15.d.1
5.5.15.a

c. After each ~~closing~~ of the equipment hatch, ~~by~~ leak rate testing ~~the~~ equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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. LA.12 RAI 3.6.1-5 3.6.3-2 R1

d. Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line. <See ITS 3.6.3>

* Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days. <See ITS 3.6.3>

A.25 CTS 6.9.1.4 regarding annual reports states, "The initial report shall be submitted prior to March 1 of the year following initial criticality." The ITS does not include such a statement. This changes the CTS by deleting a requirement for report submissions that have already occurred and will not be repeated.

This change is acceptable because the one time report requirement has already been met and no longer needs to be specified. This change is designated administrative because it does not result in technical changes to the CTS.

A.26 Not Used.

RAI
3.6.3-2
3.6.1-5
R1

A.27 CTS 6.9.1.7.e.2f , References for the Core Operating Limits Report, states, "WCAP-12610, "VANTAGE+FUEL ASSEMBLY REPORT," June 1990 (W Proprietary)." ITS 5.6.5.b.2f states, "VANTAGE+FUEL ASSEMBLY-REFERENCE CORE REPORT." This changes the CTS by correcting the reference to the title of WCAP-12610. Regarding deletion of, "June 1990 (W Proprietary)," see DOC LA.9.

This change is acceptable because it corrects the title of a reference used, without changing the reference. This change is designated administrative because it does not result in technical changes to the CTS.

A.28 CTS 6.2.4.1 states, "The Shift Technical Advisor shall serve in an advisory capacity to Shift Supervisor on matters..." CTS 6.3.1.2 states, "Incumbents in the positions of Shift Supervisor, Assistant Shift Supervisor (SRO), Control Room Operator – Nuclear (RO), and Shift Technical Advisor, shall meet or exceed the requirements of 10 CFR 55.59(c) and 55.31(a)(4)." ITS 5.2.2.f states, "An individual shall provide advisory technical support to the unit operations shift crew..." ITS 5.3.1 states, "The SS, Assistant SS, Control Room Operator – Nuclear, and individual providing advisory technical support to the unit operations shift crew, shall meet or exceed the requirements of 10 CFR 55.59(c) and 55.31(a)(4)." This changes the CTS by removing the Shift Technical Advisor title, and replacing the term Shift Supervisor with unit operations shift crew, though the requirement for the person with the specified responsibility remains the same.

This change is acceptable because the individual assigned to the responsibilities described still carries out the same tasks. The support provided is for the benefit of the unit operations shift crew, as well as the Shift Supervisor. This change clarifies that the assigned individual may provide the support directly to the Shift Supervisor or other members of the unit operations shift crew, but the result will be support for the crew as a whole in either case. This change is designated administrative because it does not result in technical changes to the CTS.

A.29 ITS 5.3.2 states, "For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR

3.6.3 Containment Isolation Valves

19. DOC A.2
(3.6.3-3) DOC A.3
CTS 3.6.1.1 ACTIONS
CTS 4.6.1.1.a
ITS 3.6.1.3, ACTIONS, SR 3.6.3.1, 3.6.3.2 and Associated Bases

NRC RAI: CTS 4.6.1.1.a verifies that all penetrations not capable of being closed by OPERABLE automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. The corresponding ITS SRs for this CTS surveillance are ITS SR 3.6.3.1 for valves outside containment and ITS SR 3.6.3.2 for valves inside containment. If CTS 4.6.1.1.a cannot be met, the ACTIONS of CTS 3.6.1.1 are entered, which require restoration of valve OPERABILITY within 1 hour or shutdown within the following 36 hours. If ITS SR 3.6.3.1 or ITS SR 3.6.3.2 cannot be met, the ACTIONS of ITS 3.6.3 are entered, which allow for one valve inoperable between 4 hours and 72 hours depending on the type of penetration to restore valve OPERABILITY before shutdown commences. This Less Restrictive (L) change, along with the addition of ITS 3.6.3 Action Notes 3 and 4, to the CTS is not justified. Refer to Comment Number 3.6.3-6 for ACTION Note 2. **Comment:** Revise the CTS markup to show this Less Restrictive (L) change and provide the appropriate discussions and justifications.

Response: The Company does not agree with the action recommended in the Comment. The CTS allow 4 hours to restore a valve to OPERABLE status or isolate the penetration affected when there is one inoperable valve in a penetration.

CTS 4.6.1.1.a states, "At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1." Specification 3.6.3.1 Actions a, b, and c allow 4 hours to restore the valve or isolate the affected penetration. There are no other administrative controls in 3.6.3.1 except for these, so one valve in a penetration is allowed to be inoperable for 4 hours. CTS 3.6.1.1 ACTION states, "Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." This one hour Action criteria would only be applied if both valves in a penetration were inoperable, because CONTAINMENT INTEGRITY would have then been lost. CONTAINMENT INTEGRITY is still maintained when at least one valve in the affected penetration is OPERABLE.

3.6.3 Containment Isolation Valves

20. DOC A.3
(3.6.3-4) JFD 6
Bases JFD 5
CTS 3.6.3.1 ACTIONS
CTS 3.6.5.1 ACTION
STS 3.6.3 ACTION Note 4 and Associated Bases
ITS 3.6.3 ACTION Note 4 and Associated Bases

NRC RAI: CTS 3.6.3.1 ACTIONS and 3.6.5.1 ACTION have been modified in the CTS markup by the addition of ITS 3.6.3 ACTION Note 4. STS 3.6.3 ACTION Note 4 states the following: "Enter applicable Conditions...when isolation valve leakage results in exceeding...." ITS 3.6.3 ACTION Note 4 modifies the STS wording by deleting "isolation valve" and adding "for a penetration flow path" between "leakage" and "results". The justification for this change (JFD 6) states that it is a clarification of the intent of the note. The staff concludes that the change is generic, as well as the associated Bases change, which does not conform to Edit 17, and is beyond the scope of review for this conversion. **Comment:** Delete this generic change.

Response: The Company does not agree with the action recommended in the Comment. ISTS 3.6.3 ACTIONS Note 4 could be read to imply that the applicable Conditions and REQUIRED Actions of LCO 3.6.1 should be entered if one valve in a penetration were inoperable because the isolation valve leakage results for the one valve, if included in the overall containment leakage, would result in exceeding the overall containment leakage rate acceptance criteria. This is not correct, because the second valve in the penetration would still be able to maintain the Containment OPERABLE.

Changing the reference in the Note from isolation valve leakage results to the leakage results for a penetration flow path is also consistent with the approach used in ISTS 3.6.2, Note 3, which addresses leakage results for an air lock resulting in exceeding the overall containment leakage rate, rather than leakage from an individual air lock door resulting in exceeding the overall containment leakage rate acceptance criteria.

As described in ITS 3.6.3, JFD 6:

"ISTS 3.6.3 ACTIONS NOTE 4 is modified to clarify that entry is required into the applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when leakage for a penetration flow path, instead of when isolation valve leakage, results in exceeding the overall containment leakage rate acceptance criteria. The Containment is not inoperable if there is still an OPERABLE containment isolation valve in the affected flow path. This change is acceptable because ISTS 3.6.3 Required Action A.1 allows 4 hours to isolate the affected penetration flow with one or more penetration flow paths with one containment isolation valve inoperable. If Required Action A.1 and its associated Completion Time are not met, the unit is required to be placed in MODE 3 within 6 hours, and MODE 5 within 36 hours. This is consistent with ISTS 3.6.1 which requires an inoperable Containment be restored to OPERABLE status within 1 hour, or the unit is

required to be placed in MODE 3 within 6 hours, and MODE 5 within 36 hours. This is also consistent with the current licensing basis."

The change is generic, but when evaluated, was determined to not meet the threshold for TSTF generation based on the fact that it would improve the ITS and assist in standardizing the ITS, but could also be interpreted correctly. This change is requested to provide assurance it is read correctly, consistent with the current licensing basis. If a TSTF is written, the expectation between the NRC and the industry is that the change in the ITS package is processed concurrently and independently of the TSTF.

3.6.3 Containment Isolation Valves

21. DOC A.5
(3.6.3-5) CTS 3.6.3.1 ACTIONS
CTS 3.6.5.1 ACTION
ITS 3.6.3 ACTION B and Associated Bases

NRC RAI: DOC A.5 states the following: "CTS 3.6.3.1 and CTS 3.6.5.1 do not include any Conditions and Required Actions for one or more penetration flow paths with two containment isolation valves inoperable. CTS 3.0.3 would be entered for this Condition." This is the basis for considering the addition of ITS 3.6.3 ACTION B as an Administrative change. While the staff agrees that the addition of ITS 3.6.3 ACTION B to CTS 3.6.5.1 ACTIONS is an Administrative change as justified in DOC A.5, it does not agree that the addition of ITS 3.6.3 ACTION B to CTS 3.6.3.1 ACTIONS is an Administrative change, but is a Less Restrictive (L) change. CTS 3.6.3.1 ACTIONS state "With one or more of the isolation valves inoperable, maintain at least one isolation valve OPERABLE in the affected penetration that is open." For penetrations with two isolation valves inoperable, one cannot maintain at least one isolation valve OPERABLE, thus the default condition is CTS 3.6.3.1 ACTION d, an immediate shutdown. Thus the change to CTS 3.6.3.1 ACTIONS of adding ITS 3.6.3 ACTION B is a Less Restrictive (L) change (0 hour to 1 hour to isolate). **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

Response: The Company does not agree with the action recommended in the Comment. The Company does not agree that this is a Less Restrictive change. CTS 3.6.3.1.d is not related to two containment isolation valves being inoperable. CTS 3.6.3.1.d follows an "or" statement associated with the previous actions allowing a valve to be inoperable for 4 hours. CTS 3.6.3.1.d states, "Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." The "next" 6 hours are after the first 4 hours have expired. The two actions do not run concurrently. If two valves in a penetration are inoperable, there is no Action stated, so CTS LCO 3.0.3 would be entered, and the DOC is correct as written.

3.6.3 Containment Isolation Valves

22. DOC A.8
(3.6.3-6) CTS 3.6.1.1 ACTION
CTS 3.6.3.1 ACTIONS
CTS 3.6.5.1 ACTION
ITS 3.6.3, ACTIONS NOTE 2

NRC RAI: CTS 3.6.3.1 ACTIONS and CTS 3.6.5.1 ACTION are modified by the addition of ITS 3.6.1.3 ACTIONS Note 2. This change is characterized as an Administrative change (DOC A.8). While this change is acceptable for CTS 3.6.3.1 and 3.6.5.1, it still needs to be addressed for the changes imposed on CTS 3.6.1.1 as a result of Comment Number 3.6.3-3. For that change, the addition of ITS 3.6.3 ACTIONS Note 2 becomes a Less Restrictive (L) change, because nothing in the ACTION statement of 3.6.1.1 implies separate condition entry. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for this Less Restrictive (L) change. Refer to Comment Number 3.6.3-3.

Response: The Company does not agree with the action recommended in the Comment. The Company does not agree that this is a Less Restrictive change. CTS 4.6.1.1.a states, "At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1." Specification 3.6.3.1 Actions a, b, and c allow 4 hours to restore the valve or isolate the affected penetration. There are no other administrative controls in 3.6.3.1 except for these, so the valves are allowed to be inoperable for 4 hours.

3.6.3 Containment Isolation Valves

23. DOC A.9
(3.6.3-7) CTS 4.6.5 1.1
ITS SR 3.6.3.1

NRC RAI: DOC A.9 discusses and justifies the changes to CTS 4.6.5.1.1 in converting this CTS SR to ITS SR 3.6.3.1. DOC A.9 states in the second sentence: "ITS SR 3.6.5.1 does not...." ITS SR 3.6.5.1 deals with containment air temperature, not containment isolation valves. **Comment:** Correct this discrepancy.

Response: The Company will take the action proposed in the Comment. In ITS 3.6.3, DOC A.9, "ITS SR 3.6.5.1 does not..." is changed to, "ITS SR 3.6.3.1 does not..."

A.7 CTS 4.6.3.1.3 requires the isolation time of each power operated or automatic containment isolation valve be determined to be within its limit when tested pursuant to Specification 4.0.5. ITS SR 3.6.3.3 requires verifying the isolation time of each automatic power operated containment isolation valve is within limits, with a Frequency in accordance with the Inservice Testing Program. This changes the CTS by stating that the Frequency is in accordance with the Inservice Testing Program.

The purpose of CTS 4.6.3.1.3 is to verify the isolation time of each power operated or automatic containment isolation valve is tested in accordance with the Inservice Testing Program. This change is acceptable because the test requirements regarding the power operated or automatic containment isolation valves remain the same. The ITS SR 3.6.3.3 Frequency remains unchanged. The inservice testing requirements of CTS 4.0.5 have been relocated to the Inservice Testing Program contained in Section 5.5 of the ITS. This change is designated as administrative because it does not result in technical changes to the CTS.

A.8 CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open…" CTS 3.6.5.1 Action states, "With the inside or outside isolation valve in the steam jet air ejector suction line not closed, restore the valve to the closed position…" ITS 3.6.3 Actions NOTE 2 states, "Separate Condition entry is allowed for each penetration flow path." This changes CTS by stating an existing allowance in ITS format.

The purpose of CTS 3.6.3.1 Action is to provide guidance on how to address isolation valve inoperabilities for individual penetrations. CTS 3.6.5.1 addresses a specific penetration. ITS 3.6.3 Actions NOTE 2 provides similar guidance in ITS format, using ITS usage rules. This change is designated as administrative because it does not result in technical changes to the CTS.

A.9 CTS 4.6.5.1.1 states, "The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by visual observation prior to increasing the Reactor Coolant System temperature above 200°F and…" ITS SR 3.6.3.1 does not include a reference to verification prior to increasing the Reactor Coolant System temperature above 200°F. ITS SR 3.0.1 states, " SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs…" This changes CTS by not including a statement for a requirement that is already addressed in the ITS 3.0 Section. R1 RAI 3.6.3-7

This change is acceptable because it incorporates a CTS requirement into the general rules for use of the ITS in the 3.0 section. This change is designated as administrative because it does not result in technical changes to the CTS.

3.6.3 Containment Isolation Valves

24. DOC L.5
(3.6.3-8) CTS 4.6.5.1.1
CTS 4.6.5.1.2
ITS SR 3.6.3.1, SR 3.6.3.2 and Associated Bases

NRC RAI: CTS 4.6.5.1.1 and 4.6.5.1.2 verify that the steam jet air ejector suction line isolation valves are closed. The corresponding ITS SRs based on the assumption that these valves are manual valves (Refer to Comment Number 3.6.3-8) are ITS SR 3.6.3.1 and 3.6.3.2, respectively. Both of these ITS SRs contain a note which allow valves in high radiation areas to be verified closed administratively. The CTS markup of CTS 4.6.5.1.1 and 4.6.5.1.2 does not show the addition of this note. **Comment:** Revise the CTS markup to show the addition of this SR Note and provide a discussion and justification for this Less Restrictive (L) change.

Response: The Company will take the action proposed in the Comment. The CTS pages and DOC L.5 are modified to address the addition of the Notes.

isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured L.4

ITS

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

3.6.3 ~~3.6.5.1~~ The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4. A.2

Insert proposed Action Note 3 A.3

ACTION: Insert proposed Action Note 4 A.8

Action NOTE 2 Action A.1 With the inside or outside isolation valve in the steam jet air ejector suction line not closed, ~~restore the valve to the closed position~~ within ~~1~~ 4 hour 5 or be in ~~HOT SHUTDOWN within the next 12 hours.~~ L.2

Action D.1 Action D.2 MODE 3 within 6 hours and MODE 5 within 36 hours M.3

Insert proposed Action A.2 M.1

Insert proposed Condition B A.5

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1 ~~4.6.5.1.1~~ The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by ~~a visual inspection~~ ~~prior to increasing the Reactor Coolant System temperature above 200°F and~~ at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position. LA.2 A.9

SR 3.6.3.2 ~~4.6.5.1.2~~ The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.

INSERT PROPOSED ITS SR 3.6.3.1 NOTE

INSERT PROPOSED ITS SR 3.6.3.2 NOTE L.5 RAI 3.6.3.8 R1

if the valve is not locked, sealed, or otherwise secured L.6 RAI 3.6.3.10 R1

if not performed within the previous 92 days L.8

A.1

5-14-81

ITS

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

isolate the affected penetration flowpath by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured L.4

3.6.3 ~~3.6.5.1~~ The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4. A.2

ACTION: Insert proposed Action Note 3 A.3

Insert proposed Action Note 4 A.8

Action NOTE 2

Action A.1 With the inside or outside isolation valve in the steam jet air ejector suction line not closed, ~~restore the valve to the closed position~~ within ~~1~~ 4 hour 5 or be in ~~HOT SHUTDOWN within the next 12 hours.~~ L.2

Action B.1 MODE 3 within 6 hours and MODE 5 within 36 hours M.3

Action B.2

INSERT proposed Action A.2 M.1

INSERT proposed Condition B A.5

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1 4.6.~~5~~.1.1 The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position ~~by a visual inspection prior to increasing the Reactor Coolant System temperature above 200°F and~~ at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position. LA.2 A.9

SR 3.6.3.2 4.6.~~5~~.1.2 The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.

INSERT PROPOSED ITS SR 3.6.3.1 NOTE

INSERT PROPOSED ITS SR 3.6.3.2 NOTE

L.5 RAI 3.6.3.8 R1

if the valve is not locked, sealed, or otherwise secured

L.6 RAI 3.6.3.10 R1

if not performed within the previous 92 days

L.8

is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.5 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.1.1.a, 4.6.5.1.1, and 4.6.5.1.2 require verification that specified containment penetrations are closed. ITS SR 3.6.3.1 and ITS SR 3.6.3.2 include similar requirements, but contain a Note that allows valves and blind flanges in high radiation areas to be verified administratively. This changes the CTS by allowing certain valves and blind flanges to not require physical verification. RAI 3.6.3-8 R1

The purpose of ITS SR 3.6.3.1 and SR 3.6.3.2 is to provide assurance that containment penetrations are closed when necessary. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The position of containment isolation valves and blind flanges in high radiation areas that are required to be closed can be verified administratively, not requiring physical verification. Access to high radiation areas is limited, making access to the valves and blind flanges more difficult, and mispositioning less likely. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

L.6 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.1.1 states, "Primary CONTAINMENT INTEGRITY shall be demonstrated: a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions except for valves that are open under administrative control as permitted by Specification 3.6.3.1." The "*" footnote states, "Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days." CTS 4.6.5.1.2 states, "The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F." ITS SR 3.6.3.1 states, "Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls," every 31 days. SR 3.6.3.2 has similar controls for valves inside containment, but a different Frequency. This changes the CTS by not requiring valves locked, sealed or otherwise secured be verified closed as part of the Technical Specification Surveillance Requirements. RAI 3.6.3-10 R1

3.6.3 Containment Isolation Valves

25. DOC L.6
(3.6.3-9) CTS 4.6.1.1.a and Associated* Footnote
ITS SR 3.6.3.2 and Associated Bases

NRC RAI: CTS 4.6.1.1.a verifies that all primary containment penetrations not capable of being closed by OPERABLE automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their closed position on a 31-day frequency except valves that are locked, sealed or otherwise secured in the closed position and are inside containment. These valves are verified during COLD SHUTDOWN except such verification need not be performed more often than once every 92 days. The corresponding ITS SR for this CTS surveillance (valves inside containment) is ITS SR 3.6.3.2. DOC L.6 justifies adding the "locked, sealed..." or otherwise secured requirement to CTS 4.6.1.1.a, but does not discuss or justify changing the associated *Footnote requirement from verifying the locked, sealed, or otherwise secured valves closed to not locked, sealed or otherwise secured and the change in frequency from 31 days for valves inside containment that are not locked, sealed or otherwise secured in the closed position to the CTS/ITS frequency of "prior to entering MODE 2...previous 92 days." This change is a less Restrictive (L) change. **Comment:** Provide additional discussion and justification for this Less Restrictive (L) change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC L.7 added to address this change.

A.1

ITS 3.63

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. <See ITS 3.6.1>

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated: <See ITS 3.6.1>

SR 3.6.3.1 INSERT Proposed SR 3.6.3.1 Note

SR 3.6.3.2

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are locked, sealed, or otherwise secured, or are open under administrative control as permitted by Specification 3.6.3.1. L.5 L.6 RAI 3.63-9 R1

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3. <See ITS 3.6.1>

c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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. <See ITS 5.0>

SR 3.6.3.4

d. Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves with resilient seals in the containment purge lines and the containment vacuum ejector line. Prior to entering MODE 4 from MODE 5 A.12 LA.4 A.13 RAI 3.63-2 3.6.1-5 R1

SR 3.63.1

SR 3.6.3.2

* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are not locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days. L7 RAI 3.63-9 R1

INSERT Proposed SR 3.63.2 Note L.5

A.1

ITS 3.6.3

02-09-96

ITS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

⟨See ITS 3.6.1⟩

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated: ⟨See ITS 3.6.1⟩

SR 3.6.3.1

SR 3.6.3.2

INSERT Proposed SR 3.6.3.1 Note

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.1. locked, sealed, or otherwise secured, or

L.5

L.6 RAI 3.6.3-9 R1

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3. ⟨See ITS 3.6.1⟩

c. After each closing of the equipment hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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. ⟨See ITS 5.0⟩

SR3.6.3.4

d. Each ~~time~~ ~~containment~~ integrity is established after vacuum has been broken by pressure testing the ~~butterfly~~ isolation valves with resilient seals in the containment purge lines and the containment ~~vacuum ejector~~ line. Prior to entering MODE 4 from MODE 5

A.12

LA.4

A.13

RAI 3.6.3-2 3.6.1-5 R1

L.7 RAI 3.6.3-9

R1

SR 3.6.3.1

SR 3.6.3.2

* Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are not locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days.

Insert proposed SR 3.6.3.2 Note

L.5

The purpose of CTS 4.6.1.1 and CTS 4.6.5.1.2 is to provide assurance that valves required to be closed are closed. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Valves are verified in position prior to being locked, sealed, or otherwise secured, and are not expected to change position because other controls are placed on them by the means of securing their position. Valves that are locked, sealed, or otherwise secured in the closed position do not require verification as part of ITS SR 3.6.3.1 or ITS SR 3.6.3.2 because these valves were verified to be in the correct position upon locking, sealing, or securing. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

RAI 3.6.3-10 R1

RAI 3.6.3-10 R1

L.7 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.1.1 states, "Primary CONTAINMENT INTEGRITY shall be demonstrated: a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions except for valves that are open under administrative control as permitted by Specification 3.6.3.1." The "*" footnote states, "Except valves, blind flanges, and deactivate automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days." ITS SR 3.6.3.2 states, "Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls." The Frequency is prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. This changes the CTS for the valves inside containment by only requiring valves not locked, sealed or otherwise secured to be verified closed prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days, instead of every 31 days. Changes associated with not requiring verification of closure of valves which are locked, sealed, or otherwise secured, are addressed in DOC L.6.

RAI 3.6.3-9 R1

The purpose of CTS 4.6.1.1 is to provide assurance that valves required to be closed are closed. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. Valves not locked, sealed or otherwise secured are verified in position prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days, and are not expected to change position because these containment isolation valves are operated under strict administrative controls, and access to containment is under strict access control. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

3.6.3 Containment Isolation Valves

26. DOC L.6
(3.6.3-10) CTS 4.6.1.1.a
CTS 4.6.5.1.2
ITS SR 3.6.3.2 and Associated Bases

NRC RAI: CTS 4.6.5.1.2 verifies that the steam jet air ejector suction line isolation valves inside containment are closed prior to increasing the RCS temperature above 200□F. The corresponding ITS SR based on the assumption that these valves are manual valves (Refer to Comment Number 3.6.3-8) is ITS SR 3.6.3.2. ITS SR 3.6.3.2 verifies that manual containment isolation valves inside containment that are required to be closed are closed prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days except for valves that locked, sealed or otherwise secured. The CTS markup does not modify CTS 4.6.5.1.2 to show the Less Restrictive (L) changes to the frequency (Prior to entering MODE 4 from MODE 5 to prior to entering MODE 4 from MODE 5 if not performed within previous 92 days) and exempting locked, sealed or otherwise secured valves. DOC L.6 provides some of this discussion and justification but only for CTS 4.6.1.1.a. Refer to Comment Number 3.6.3-10. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for these Less Restrictive (L) changes.

Response: The Company will take the action proposed in the Comment. The CTS markup and DOC L.6 are changed to address the exemption, and DOC L.8 is added to address the Frequency change.

A.1

5-14-81

ITS

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

isolate the affected penetration flowpath by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured L.4

3.6.3 ~~3.6.5.1~~ The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4. A.2

ACTION: Insert proposed Action Note 3 A.3

Insert proposed Action Note 4 A.8

Action NOTE 2
Action A.1 With the inside or outside isolation valve in the steam jet air ejector suction line not closed, ~~restore the valve to the closed position~~ within ~~1~~ 4 hour(s) or be in ~~HOT SHUTDOWN within the next 12 hours.~~ L.2

MODE 3 within 6 hours and MODE 5 within 36 hours M.3

Action B.1
Action B.2

INSERT proposed Action A.2 M.1

INSERT proposed Condition B A.5

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1 ~~4.6.5.1.1~~ The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position ~~by a visual inspection~~ ~~prior to increasing the Reactor Coolant System temperature above 200°F and~~ at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position. LA.2 A.9

SR 3.6.3.2 ~~4.6.5.1.2~~ The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.

INSERT PROPOSED ITS SR 3.6.3.1 NOTE

INSERT PROPOSED ITS SR 3.6.3.2 NOTE

L.5 RAI 3.6.3.8 R1

if the valve is not locked, sealed, or otherwise secured

L.6 RAI 3.6.3.10 R1

if not performed within the previous 92 days

L.8

A.1

ITS 3.6.3

5-14-81

ITS

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured L.4

3.6.3 ~~3.6.5.1~~ The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4. A.2

Insert proposed Action Note 3 A.3

ACTION: Insert proposed Action Note 4 A.8

Action NOTE 2 Action A.1 With the inside or outside isolation valve in the steam jet air ejector suction line not closed, ~~restore the valve to the closed position~~ within ~~2~~ 4 hour 5 or be in ~~HOT SHUTDOWN within the next 12 hours.~~ L.2

Action D.1 Action D.2 MODE 3 within 6 hours and MODE 5 within 36 hours M.3

Insert proposed Action A.2 M.1

Insert proposed Condition B A.5

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1 ~~4.6.5.1.1~~ The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by ~~a visual inspection prior to increasing the Reactor Coolant System temperature above 200°F and~~ at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position. LA.2 A.9

SR 3.6.3.2 ~~4.6.5.1.2~~ The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.

INSERT PROPOSED ITS SR 3.6.3.1 NOTE

INSERT PROPOSED ITS SR 3.6.3.2 NOTE L.5 RAI 3.6.3.8 R1

if the valve is not locked, sealed, or otherwise secured L.6 RAI 3.6.3.10 R1

if not performed within the previous 92 days L.8

is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.5 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.1.1.a, 4.6.5.1.1, and 4.6.5.1.2 require verification that specified containment penetrations are closed. ITS SR 3.6.3.1 and ITS SR 3.6.3.2 include similar requirements, but contain a Note that allows valves and blind flanges in high radiation areas to be verified administratively. This changes the CTS by allowing certain valves and blind flanges to not require physical verification. RAI 3.6.3-8 R1

The purpose of ITS SR 3.6.3.1 and SR 3.6.3.2 is to provide assurance that containment penetrations are closed when necessary. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The position of containment isolation valves and blind flanges in high radiation areas that are required to be closed can be verified administratively, not requiring physical verification. Access to high radiation areas is limited, making access to the valves and blind flanges more difficult, and mispositioning less likely. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

L.6 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.1.1 states, "Primary CONTAINMENT INTEGRITY shall be demonstrated: a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions except for valves that are open under administrative control as permitted by Specification 3.6.3.1." The "*" footnote states, "Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days." CTS 4.6.5.1.2 states, "The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F." ITS SR 3.6.3.1 states, "Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls," every 31 days. SR 3.6.3.2 has similar controls for valves inside containment, but a different Frequency. This changes the CTS by not requiring valves locked, sealed or otherwise secured be verified closed as part of the Technical Specification Surveillance Requirements. RAI 3.6.3-10 R1

The purpose of CTS 4.6.1.1 and CTS 4.6.5.1.2 is to provide assurance that valves required to be closed are closed. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Valves are verified in position prior to being locked, sealed, or otherwise secured, and are not expected to change position because other controls are placed on them by the means of securing their position. Valves that are locked, sealed, or otherwise secured in the closed position do not require verification as part of ITS SR 3.6.3.1 or ITS SR 3.6.3.2 because these valves were verified to be in the correct position upon locking, sealing, or securing. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

RAI 3.6.3-10 R1

RAI 3.6.3-10 R1

L.7 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.1.1 states, "Primary CONTAINMENT INTEGRITY shall be demonstrated: a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves, secured in their positions except for valves that are open under administrative control as permitted by Specification 3.6.3.1." The "*" footnote states, "Except valves, blind flanges, and deactivate automatic valves which are located inside the containment and are locked sealed or otherwise sealed in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such surveillance need not be performed more often than once per 92 days." ITS SR 3.6.3.2 states, "Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls." The Frequency is prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. This changes the CTS for the valves inside containment by only requiring valves not locked, sealed or otherwise secured to be verified closed prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days, instead of every 31 days. Changes associated with not requiring verification of closure of valves which are locked, sealed, or otherwise secured, are addressed in DOC L.6.

RAI 3.6.3-9 R1

The purpose of CTS 4.6.1.1 is to provide assurance that valves required to be closed are closed. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. Valves not locked, sealed or otherwise secured are verified in position prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days, and are not expected to change position because these containment isolation valves are operated under strict administrative controls, and access to containment is under strict access control. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.8 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.5.1.2 states, "The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F." ITS SR 3.6.3.2 states, "Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls." The Frequency is prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. This changes the CTS by adding the criteria to the Frequency that the verification may be performed up to 92 days prior to entering MODE 4 from MODE 5. Changes associated with valves which are locked, sealed, or otherwise secured are addressed by DOC L.6. RAI 3.6.3-10 R1

The purpose of CTS 4.6.5.1.1 is to provide assurance that steam jet air ejector suction line inside isolation valve required to be closed is closed. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The change allows the valve to be verified closed up to 92 days prior to entering MODE 4 from MODE 5. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.9 *(Category 1 – Relaxation of LCO Requirements)* CTS 3.6.3.1 footnote "*" states, "Locked or sealed closed valves may be opened on an intermittent basis under administrative control." ITS 3.6.3 Action Note 1 states, " Penetration flow paths, except for 36 inch purge and exhaust valve, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths, may be unisolated on an intermittent basis under administrative control." This changes the CTS by allowing any penetration, except for the exceptions noted, to be unisolated on an intermittent basis under administrative control, and not just locked or sealed closed valves. Changes associated with the exceptions to this allowance listed are addressed by DOC M.2. RAI 3.6.3-15 R1

The purpose of the CTS 3.6.3.1 footnote "*" is to provide reasonable operational flexibility regarding containment penetrations. This change is acceptable because the LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. This change allows any penetration flow path, and not just locked or sealed closed valves to be opened on an intermittent basis under administrative control, except for the specific exceptions listed. The administrative controls used provide the same level of protection whether the flow paths include locked or sealed closed valves or not. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

L.10 *(Category 4 – Relaxation of Required Action)* CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable...b. Isolate each affected penetration within RAI 3.6.3-18 R1

3.6.3 Containment Isolation Valves

27. (3.6.3-11)

JFD 3
Bases JFD 2
CTS 4.6.3.1.2.c
CTS 4.6.3.1.2.d
STS SR 3.6.3.1, SR 3.6.3.2 and Associated Bases
ITS 3.6.3 ACTION Note 1, SR 3.6.3.1, SR 3.6.3.2, SR 3.6.3.5 and Associated Bases

NRC RAI: STS SR 3.6.3.1 and SR 3.6.3.2 verify that the containment purge valves are either sealed closed or closed, respectively, and allowed to be opened under specific conditions. The ITS markup of ITS 3.6.3 does not include these two STS SRs. The justification used to delete these SRs (JFD 3) states that the purge valves are not opened in MODES 1, 2, 3, or 4, "and the CTS treats the purge valves in the same manner as other containment isolation valves." The staff concludes that some form of STS SR 3.6.3.1 or SR 3.6.3.2 needs to be included in ITS 3.6.3. This is based on a number of items. The staff cannot determine from the CTS, the ITS Bases, or the JFD discussions if all the containment purge valves are automatic, power-operated or manual. Based on CTS 4.6.3.1.2.c and CTS 4.6.3.1.2.d, and ITS B3.6.3 Bases - LCO, one could conclude that the 36-inch purge valves and the 18-inch containment vacuum breaking valves are considered automatic valves. Refer to Comment Number 3.6.3-13 for concerns with regards to check valves and spring load check valves. It is not clear for the 8-inch purge bypass valves. If the purge valves are manual, then ITS SR 3.6.3.1 and SR 3.6.3.2 will verify closure. If they are automatic there is no verification of valve closure. ITS SR 3.6.3.5 only verifies that the vacuum breaking valves open and close on pressure differential on an 18-month basis and does not verify closure during operation. In addition, ITS 3.6.3 ACTIONS Note 1 allows containment penetrations to be unisolated intermittently under administrative controls except for the 36-inch purge and exhaust valves, 18-inch containment vacuum breaking valves, and the 8-inch purge bypass valve. The ITS note as written and without the appropriate SRs would allow these valves to be opened indefinitely. Thus, the staff requires the SRs be proposed to verify valve closure for these valves. Depending on the resolution of Comment Number 3.6.3-8, this concern will also apply to the steam jet air ejector suction line valves.
Comment: Revise the CTS/ITS markups to include STS SR 3.6.3.1, SR 3.6.3.2 or a modification of these SRs to reflect plant-specific criteria and provide the appropriate discussions and justifications for these changes.

Response: The Company does not agree with the action recommended in the Comment. The ISTS markup is modified and JFD 9 is added to substitute for JFD 3 to describe not adopting ISTS SR 3.6.3.1 and SR 3.6.3.2.

The containment at NAPS is a subatmospheric containment. The Containment Purge and Exhaust valves are secured closed in MODES 1, 2, 3, and 4. The ACTIONS Note 1 prevents them from being opened intermittently during operation, they are excluded from that allowance. The valves are power operated. They are not automatic in MODES 1, 2, 3, or 4. Adding the restriction to the CTS is addressed by DOC M.2. This is also explained in an addition to the Bases Background, where we say, deleting the word "normally", "The 36 inch purge valves are maintained closed in MODES 1, 2, 3, and 4 to

ensure the containment boundary is maintained. The 18 inch containment vacuum breaking valve and 8 inch purge bypass valve are also maintained closed in MODES 1, 2, 3, and 4." These references together make it clear that the valves are required to be closed, and if not secured, verified every 31 days. They are treated like any other power operated, non-automatic valve, except that they may not be opened. The ISTS 3.6.3.1 Bases also refer to a capability to automatically close, and ISTS SR 3.6.3.2 refers to the ability to open the minipurge valves. Neither of these applies at North Anna. None of the purge and exhaust isolation valves are capable of automatically closing in MODES 1, 2, 3, and 4. Besides all that, if they were open, the unit would have to be shutdown based on the Containment Pressure LCO (one hour action statement) because the containment is subatmospheric.

CTS

1

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
~~[SR 3.6.3.1~~	~~Verify each [42] inch purge valve is sealed closed, except for one purge valve in a penetration flow path while in Condition E of this LCO.~~	~~31 days]~~
~~[SR 3.6.3.2~~	~~Verify each [8] inch purge valve is closed, except when the [8] inch containment purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open.~~	~~31 days]~~
NEW 4.6.1.1.a SR 3.6.3.~~3~~ 1	-------------------NOTE------------------- Valves and blind flanges in high radiation areas may be verified by use of administrative controls. --	
	Verify each containment isolation manual valve and blind flange that is located outside containment, and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	31 days TSTF-45

9 RAI 3.6.3-1 R1

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(continued)

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CTS

SURVEILLANCE REQUIREMENTS (continued)

CTS	SURVEILLANCE		FREQUENCY	
NEW 4.6.1.1.a "*"	SR 3.6.3.~~8~~ 2	------NOTE------ Valves and blind flanges in high radiation areas may be verified by use of administrative means.		9 RAI 3.6.3-11 R1
and not locked, sealed, or otherwise secured		Verify each containment isolation manual valve and blind flange that is located inside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days	TSTF-45
4.6.3.1.3	SR 3.6.3.~~8~~ 3	Verify the isolation time of ~~each power operated and~~ each automatic power operated containment isolation valve is within limits.	[In accordance with the Inservice Testing Program ~~or 92 days~~]	9 RAI 3.6.3-11 R1 2 TSTF-46
4.6.3.1.1	~~[SR 3.6.3.6~~	~~Cycle each weight or spring loaded check valve testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and < [5.0] psid.~~	~~92 days]~~	5

(continued)

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CTS

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SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE		FREQUENCY	
	SR 3.6.3.~~7~~ 4	Perform leakage rate testing for containment purge valves with resilient seals.	~~184 days AND Within 92 days after opening the valve~~ Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken	5 10 2 RAI 3.6.3-2 3.6.1-5 R1
4.6.3.1.2.a,b&c	SR 3.6.3.~~8~~ 5	Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	[18] months	4 5 2
4.6.3.1.2.d	SR 3.6.3.~~9~~ 6	Cycle each weight or spring loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and < [5.0] psid.	18 months	5 2 2
	~~SR 3.6.3.10~~	~~Verify each [ ] inch containment purge valve is blocked to restrict the valve from opening > [50]%.~~	~~[18] months~~	9 RAI 3.6.3-11 R1

(continued)

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are 24 hours, while the ISTS 3.6.3 Required Action A.1 and A.2 Completion times are 4 hours. The other difference is that ISTS Required Action E.3 requires ISTS SR 3.6.2.7 be performed once per [92] days for the resilient seal purge valves closed to comply with Required Action E.1. At NAPS, ISTS 3.6.3 SR 3.6.2.7 is not performed in the MODE of Applicability. The references to purge valve leakage are related to ISTS 3.6.3 ACTION E, so they are no longer required. Subsequent requirements are numbered and lettered accordingly.

8. The bracketed term "or more," added to ISTS 3.6.3 Condition A Note, Condition B Note, and Condition B, is not adopted. At NAPS, only two valves in each penetration addressed by Conditions A and B are required. This consistent with the current licensing basis.

9. ISTS SR 3.6.3.1, SR 3.6.3.2, and SR 3.6.3.10 are not adopted. Purge valves are not opened in MODES 1, 2, 3 and 4, and do not automatically close. The CTS treat the purge valves in the same manner as other manually operated containment isolation valves. As stated in the ISTS SR 3.6.3.1, SR 3.6.3.2 and SR 3.6.3.10 Bases, the separate criteria applied to purge valves in the ISTS are related to use of the valves in MODES 1, 2, 3, and 4. Subsequent requirements are numbered and lettered accordingly. RAI 3.6.3-11 R1

10. The Frequency of 184 days and within 92 days after opening the valve in ISTS SR 3.6.3.7 is changed to, "Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken." The NAPS containment is subatmospheric and testing the containment purge valves with resilient seals while in MODE 1, 2, 3, or 4 is not performed for industrial safety reasons. The Frequency which is proposed will test the valves before entering the MODE of Applicability each time containment vacuum is broken and the valves can be tested safely. Maintenance history supports this Frequency, and the Frequency is consistent with the current licensing basis. Subsequent requirements are numbered and lettered accordingly.

3.6.3 Containment Isolation Valves

28. (3.6.3-12)

JFD 4
Bases JFD 2
Bases JFD 7
STS SR 3.6.3.8 and Associated Bases
ITS SR 3.6.3.4 and Associated Bases

NRC RAI: STS SR 3.6.3.8 verifies that each automatic containment isolation valve (CIV) that is not locked, sealed or otherwise secured in position actuates to its isolation position. ITS SR 3.6.3.4 modifies STS SR 3.6.3.8 by adding "power operated" between "automatic" and "containment." The justification used for this change (JFD 4) states that the change is to clarify that only power-operated CIVs are considered automatic. The implication of this change is that check valves are not considered as automatic valves. This reasoning is carried over to changes made to ITS B3.6.3 Bases - BACKGROUND and the associated Bases JFD 7. STS B3.6.3 - BACKGROUND states the following: "Check valves, or other automatic valves..." ITS B3.6.3 Bases - BACKGROUND deletes the words "Check valves, or other" by Bases JFD 7. The justification states that check valves are not considered active devices. The staff's position is that check valves, when used as CIVs, are considered as automatic valves and thus are active devices. STS 3.6.3 Bases - BACKGROUND states this position and the discussion in STS B3.6.3 Bases - LCO reaffirms it when it differentiates between automatic power-operated isolation valves and check valves. The Bases for this position can be found in 10 CFR 50 Appendix A, General Design Criteria 55, 56, and 57, which state that check valves may not be used as one of the automatic isolation valves for certain types of penetrations. Thus the staff finds these changes unacceptable. In addition, the change made in ITS SR 3.6.3.4 is considered generic and beyond the scope of review for this conversion. **Comment:** Delete these changes.

Response: The Company does not agree with the action recommended in the Comment. The North Anna design assumes that check valves are automatic, active devices for functional purposes, but are passive components from the standpoint of single failure and system design.

ITS 3.6.3 JFD 4 is modified to state that for functional purposes, check valves are active or automatic devices, but do not receive an actuation signal. Adding the term "power operated" in ISTS SR 3.6.3.8 clarifies that only power-operated valves receive an actuation signal, and the automatic function of check valves is verified as part of ISTS SR 3.6.3.9.

ITS 3.6.3 Bases JFD 7 is modified to explain that consistent with Information Report SECY-77-439, dated August 17, 1977, "Check valves are classified as active components for the purposes of functional specification, inservice inspection, testing, and valve design (re: Regulatory Guide 1.146). Check valves are classified as passive components for the purposes of single failure and system design." The reference in the ISTS 3.6.3 Bases that is deleted is part of a discussion that addresses failures of automatic valves for the purposes of single failure, which is not that case for check valves at NAPS.

Regarding the GDC 55, 56, and 57 references, North Anna is not licensed to these GDCs in 10 CFR 50 Appendix A, but the criteria in the North Anna UFSAR Chapter 3 read the same way. In the NAPS response to comments dated October 15, 1975, the valves identified as being containment penetration valves were shown to all be inside containment. North Anna UFSAR Chapter 3 and GDC 55, 56, and 57 references that exclude check valves from being used as automatic valves state that simple check valves may not be used as the automatic isolation valve outside containment.

hatch, by leak rate testing the equipment hatch seals, with gas at P_a, greater than or equal to 44.1 psig. Results shall be evaluated against the criteria of Specification 3.6.1.2.b 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." ITS 5.0 does not include such a specific requirement for the equipment hatch. This changes the CTS by moving the reference leak rate testing for the equipment hatch to the Containment Leak Rate Testing Program (CLRTP). RAI 3.6.1-5 R1

The removal of these details for performing surveillance requirements from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. ITS 5.5.15 retains the requirement for a CLRTP, which requires the program be in accordance with the guidelines contained in Regulatory Guide 1.163, dated September 1995. Regulatory Guide 1.1.63 states that NEI 94-01, Revision 0, provides methods acceptable to the NRC for complying with 10 CFR Part 50, Appendix J, Option B. Section 10.2.1.3 of NEI 94-01 requires a type B test to be performed prior to the time containment integrity is required, if a containment penetration is opened. Since the equipment hatch is a containment penetration, ITS 5.5.15 already requires the equipment hatch to be type B tested after it is closed, prior to entering MODE 4. Also, this change is acceptable because these types of procedural details will be adequately controlled in the CLRTP. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications.

LESS RESTRICTIVE CHANGES

L.1 CTS Table 6.2-1 specifies that the shift crew may be one less than the minimum complement, except for the Shift Supervisor, for a period of time not to exceed 2 hours. CTS Table 6.2-1 also takes an exception that the provision for being less than minimum shift crew complement does not apply for any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent. ITS 5.2.2.b does not make these exceptions to the requirements of 10 CFR 50.54 (m)(2)(i). This changes the CTS by allowing shift crew composition to be less than the manning requirements without specifying exceptions to this allowance.

The purpose of the allowance to have less than the required the shift crew manning requirements is to accommodate short term unexpected absences of shift crew personnel. This change is acceptable because 10 CFR 50.54 (m)(2)(ii) still requires a minimum of two SROs and four ROs when the shift crew composition is less than the manning requirements, which is enough to safely operate the unit. This change is designated less restrictive because restrictions regarding shift manning are being deleted from the CTS.

3.6.1 Containment

6. Bases JFD 3
(3.6.1-6) STS B3.6.1 Bases - LCO and SR 3.6.1.1
ITS B3.6.1 Bases - LCO and SR 3.6.1.1

NRC RAI: STS B3.6.1 Bases - LCO and SR 3.6.1.1 contain references to containment purge valve leak rate testing. ITS B3.6.1 Bases - LCO and SR 3.6.1.1 delete these references. In light of the discussions in Comment Numbers 3.6.1-4, 3.6.1-5 and 3.6.3-2, these references should be retained in the ITS. **Comment:** Revise the ITS markup to retain the purge valve references.

Response: The Company will take the action proposed in the Comment. The references in the 3.6.1 Bases are restored.

BASES

LCO (continued)	Compliance with this LCO will ensure a containment configuration, including the equipment hatch, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. Individual leakage rates specified for the containment air lock (LCO 3.6.2) and purge valves with resilient seals (LCO 3.6.3) are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J. Therefore, leakage rates exceeding these individual limits only result in the containment being inoperable when the leakage results in exceeding the overall acceptance criteria of 1.0 L_a. RAI 3.6.1-6 R1
APPLICABILITY	In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."
ACTIONS	A.1 In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal. B.1 and B.2 If containment cannot be restored to OPERABLE status within the required Completion Time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to 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.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

Maintaining the containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of the Containment Leakage Rate Testing Program. Failure to meet air lock and purge valves with resilient seal leakage limits specified in LCO 3.6.2 and LCO 3.6.3 does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required Containment Leakage Rate Testing Program, leakage test is required to be $\leq 0.6\ L_a$ for combined Type B and C leakage, and $\leq 0.75\ L_a$ for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of $\leq 1.0\ L_a$. At $\leq 1.0\ L_a$ the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by the Containment Leakage Rate Testing Program. These periodic testing requirements verify that the containment leakage rate does not exceed the leakage rate assumed in the safety analysis. RAI 3.6.1-6 R1

REFERENCES

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

 (2)

BASES

APPLICABLE SAFETY ANALYSES (continued)

The containment satisfies Criterion 3 of the NRC Policy Statement. 10 CFR 50.36 (c)(2)(ii) (4)

LCO

Containment OPERABILITY is maintained by limiting leakage to ≤ 1.0 L_a, except prior to the first startup after performing a required 10 CFR 50, Appendix J leakage test. At this time, the combined Type B and C leakage must be < 0.6 L_a, and the overall Type A leakage must be < 0.75 L_a. TSTF-52

Containment Leakage Rate Testing Program

the applicable leakage limits must be met.

Compliance with this LCO will ensure a containment configuration, including equipment hatches, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. (1)

Individual leakage rates specified for the containment air lock (LCO 3.6.2), and purge valves with resilient seals (LCO 3.6.3) are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J. Therefore, leakage rates exceeding these individual limits only result in the containment being inoperable when the leakage results in exceeding the overall acceptance criteria of Appendix J 1.0 La (3) RAI 3.6.1-6 R1 TSTF-52

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

A.1

In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period

(continued)

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BASES

ACTIONS

A.1 (continued)

also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal.

B.1 and B.2

If containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. unit 1

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

Maintaining the the containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of 10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions. Containment Leakage Rate Testing Program TSTF-52 Failure to meet air lock and purge valve with resilient seal leakage limits specified in LCO 3.6.2 and LCO 3.6.3 does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required 10 CFR 50 Appendix J leakage test is required to be ≤ 0.6 L_a for combined Type B and C leakage, and ≤ 0.75 L_a for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by the Containment Leakage Rate Testing Program Appendix J, as modified by approved exemptions. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply. TSTF-52 These periodic testing requirements verify that the containment leakage rate does not exceed the leakage rate assumed in the safety analysis.

3 3 RAI 3.6.1-6 R1

7 RAI 3.6.1-4 R1 TSTF-52

INSERT A

5 TSTF-52

(continued)

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3.6.2 Containment Air Locks

7. (3.6.2-1)	DOC A.8 (CTS 1.0) CTS 1.6.3 ITS 3.6.2 and Associated Bases

NRC RAI: See Comment Number 3.6.1-1. **Comment:** See Comment Number 3.6.1-1.

Response: The Company will take the action proposed in the Comment.

CTS 1.6.1 is marked as part of ITS 3.6.3 adopting the requirement using DOC A.1. Requirements for CTS 1.6.1 are included as being related to ITS SR 3.6.3.1, SR 3.6.3.2, SR 3.6.3.3, and 3.6.3.4.

CTS 1.6.3 is remarked as part of ITS 3.6.2 adopting the requirement using DOC A.1. Requirements for CTS 1.6.3 have been marked as part of ITS 3.6.2.

CTS 1.6.4 is remarked as part of ITS SR 3.6.1.1 adopting the requirement using DOC A.1. ISTS 3.6.1.2 is not adopted.

An LA DOC is not used because the material is retained in the ITS, not moved to another document. DOC A.1 is used instead.

CTS Pages in Section 1.0 are marked to describe to which ITS sections the respective requirements are being moved.

For changes, see RAI 3.6.1-1.

3.6.2 Containment Air Locks

8. DOC A.7
(3.6.2-2) DOC L.2
DOC L.3
CTS 3.6.1.3 ACTIONS
ITS 3.6.2 Conditions A, B and Associated Bases

NRC RAI: The markup of CTS 3.6.1.3 ACTIONS is modified by the addition of several of ITS notes. DOCs A.7 and L.3 discuss the addition of Required Actions A and B, Note 1 and Required Actions A and B Note 2 respectively. The CTS markup for North Anna Unit 1 shows this addition as applicable to any ITS 3.6.2 Condition while the markup for Unit 2 shows this addition as applicable to Condition A only. In addition, DOC L.2 discusses the addition of ITS 3.6.2 Action B to CTS 3.6.1.3 ACTIONS, which would imply that the notes associated with ACTION B would be covered by this DOC. Thus the CTS markup for Unit 1 should be the same as the Unit 2 markup, and DOC A.7 and L.3 should be revised to reflect this. Refer to Comment Numbers 3.6.2-3, 3.6.2-4, and 3.6.2-6 for additional concerns with regards to the addition of ITS 3.6.2 Condition B and its associated notes, and Comment Number 3.6.2-5 for additional concerns with regards to ITS 3.6.2 Required Action A Note 2. **Comment:** Revise the CTS markup as discussed above and revise the discussions and justifications appropriately.

Response: The Company will take the action proposed in the Comment, with certain modifications. ITS 3.6.2 DOC A.7 and DOC L.3 are modified, deleting references to Condition B. The reference in the Unit 1 CTS markup is modified to only reflect Condition A in relation to DOC A.7 and DOC L.3. The notes associated with Condition B are addressed as part of DOC L.2, which adds Condition B to the CTS.

(A.1)

ITS

ITS 3.6.2

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

(A.1)

3.6.2 ~~3.6.1.3~~ ~~Each~~ Two containment air locks shall be OPERABLE ~~with:~~ (LA.1)

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_a at P_a greater than or equal to 44.1 psig. (A.8)

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2 (A.7) (L.3) RAI 3.6.2-2 3.6.2-6 R1

ACTION:

(A.5)

(m.1)

Action A.1 ~~a.~~ With one or more containment air locks with one containment air lock door inoperable:

~~1.~~ Maintain at least the OPERABLE air lock door closed within 1 hour and ~~either restore the inoperable air lock door to OPERABLE status~~ within 24 hours ~~or~~ lock the OPERABLE air lock door closed. ~~or~~ (A.2)

Action A.2 (A.1)

Action A.3 ~~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 (L.4) (A.4)

Action D.1 Action D.2 ~~3.~~ Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (A.3)

Add proposed Condition B ~~4.~~ ~~The provisions of Specification 3.0.4 are not applicable.~~ (m.1)

Add proposed Action C.1 ~~b.~~ With ~~a~~ one or more containment air locks inoperable, except as the result of an inoperable air lock door, interlock mechanism or (L.2) maintain at least one air lock door closed within 1 hour; ~~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. (m.2)

Action C.2

Action C.3

Action D.1 (A.5)

Action D.2

SURVEILLANCE REQUIREMENTS ← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 (A.9) RAI 3.6.2-10 R1

← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2 (A.10)

~~4.6.1.3~~ Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 ~~a.~~ By performing leakage rate testing as required by the Containment Leakage Rate Testing Program ~~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.~~ (A.8) (See ITS 5.0) RAI 3.6.2-7

SR 3.6.2.2 ~~b.~~ At least once per ~~refueling outage~~ 24 months by verifying that only one door in each air lock can be opened at a time. (L.6) R1

Actions NOTE 1 ~~*~~ Entry and exit to repair the ~~inner~~ affected air lock ~~door~~ components, if inoperable, is allowed. (L.1)

Add Proposed Actions NOTE 2 (A.5)

Add proposed Actions NOTE 3 (A.6)

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This change is acceptable because operating until performance of the next required overall air lock leakage test is allowed without the deleted reference, if the specified Actions are taken. This change is designated as administrative because it does not result in technical changes to the CTS.

A.5 CTS 3.6.1.3 states, "Each containment air lock shall be OPERABLE…" CTS 3.6.1.3 Action a states, "With one containment air lock door inoperable:" and specifies Actions to be taken. CTS 3.6.1.3 Action b states, "With a containment air lock inoperable, except as a result of an inoperable air lock door," and specifies Actions to be taken. ITS Actions NOTE 2 states, "Separate Condition entry is allowed for each air lock." ITS Condition A states, "One or more containment air locks with one containment air lock door inoperable," and ITS Condition C states, "One or more containment air locks inoperable for reasons other than Condition A or B." This changes CTS by clarifying the current intent of applying the Actions to each air lock separately.

The purpose of CTS 3.6.1.3 is to ensure containment air locks meet their requirements for containment OPERABILITY. One OPERABLE air lock door in each containment air lock provides a pressure boundary, and applying the Actions for one inoperable air lock door to each of the air locks separately is appropriate. ITS 3.6.2 Actions NOTE 2 clearly states this. The Required Actions for each Condition provide appropriate compensatory action for each inoperable air lock. This change is acceptable because it clarifies existing requirements and better describes how the requirements are currently used. This change is designated as administrative because it does not result in technical changes to the CTS.

A.6 CTS 3.6.1.3 does not include a reference to entering applicable Conditions and Required Actions of the Containment OPERABILITY LCO (CTS 3.6.1.1). ITS 3.6.2 Actions NOTE 3 states, "Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when air lock leakage results in exceeding the overall containment leakage rate." This changes CTS by explicitly requiring the Containment Conditions be entered when the Containment LCO is not met as a result of air lock leakage exceeding limits.

This change is acceptable because it reinforces the requirement in ITS 3.6.1 to meet overall containment leakage limits. This change is designated as administrative because it does not result in technical changes to the CTS.

A.7 CTS 3.6.1.3 Action a addresses one inoperable containment air lock door, and CTS Action b addresses an inoperable containment air lock for reasons other than an inoperable air lock door, which includes both air lock doors in one air lock being inoperable. Either Action a or b would be taken. ITS 3.6.2 NOTE 1 of Required Action A directs entry into Condition C when both doors in the same air lock are inoperable. This changes CTS by adding a NOTE to clarify that entry into Condition R1 RAI 3.6.2-2

L.3 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable. ITS 3.6.2 Required Action A NOTE 2 states, "Entry and exit is permissible for 7 days under administrative controls." This changes CTS by allowing entry and exit of containment under specified criteria for any reason.

RAI 3.6.2-2 3.6.2-5 3.6.2-6 R1

The purpose of ITS 3.6.2 NOTE 2 of Action A is to provide reasonable access to containment when both air locks are inoperable. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. Actions for safe operation of the air lock must still be taken, and controls are placed on the use of the air lock commensurate with the importance of the air lock being able to perform its safety function. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.4 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not address how to verify locked closed air lock doors in high radiation areas. ITS 3.6.2 Required Action A.3 contains a NOTE that provides an allowance for air lock doors in high radiation areas to be verified locked closed by administrative means when a containment air lock door or containment air lock interlock mechanism is inoperable. This changes CTS by allowing an air lock door in a high radiation area to be verified closed by administrative means.

RAI 3.6.2-4 R1

The purpose of the Note in ITS 3.6.2 Required Action A.3 is to provide reasonable assurance in a safe manner that air lock doors in high radiation areas are locked closed. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. The air lock doors are still required to be verified locked closed in the affected air lock. Considering the doors are locked and located in high radiation areas whose entry is closely controlled, verifying the doors closed administratively is reasonable. This avoids the risks and potential exposure associated with additional entries into high radiation areas. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

RAI 3.6.2-4 R1

3.6.2 Containment Air Locks

9. DOC L.2
(3.6.2-3) CTS 3.6.1.3 ACTION b
ITS 3.6.2 ACTION B and Associated Bases

NRC RAI: DOC L.2 states the following: "CTS 3.6.1.3 does not contain a specific Action addressing an inoperable air lock interlock mechanism." This is an incorrect statement. For an inoperable air lock interlock mechanism, CTS 3.6.1.3 ACTION b is entered, which requires that the air lock be restored to OPERABLE status within 24 hours or the plant is shut down. In converting CTS 3.6.1.3 ACTION b to ITS 3.6.2 ACTION B, all the changes made, including the addition of the associated notes, would still be a Less Restrictive (L) change. Refer to Comment Numbers 3.6.2-2 and 3.6.2-6. **Comment:** Revise DOC L.2 to correct the erroneous statement.

Response: The Company will take the action proposed in the Comment. ITS 3.6.2 DOC L.2 is modified to clarify that CTS 3.6.1.3 ACTION b is the Action that would be taken in the event of an inoperable containment air lock interlock mechanism.

taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. This change allows more flexibility for entry and exit to an inoperable air lock for repairs to any air lock component. This change is acceptable because of the low probability of an event that could pressurize the containment during the short time the containment air lock is being accessed from the barrel side. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

R1 RAI 3.6.2-3

L.2 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 Action b states, "With a 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 HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." This is the action that would be taken in the event of an inoperable air lock interlock mechanism. ITS 3.6.2 Condition B requires that with a containment air lock interlock mechanism inoperable, an OPERABLE door is verified closed in the affected air lock within 1 hour, an OPERABLE door is closed in the affected air lock, and an OPERABLE door is verified locked closed in the affected air lock once per 31 days. Required Action NOTES indicate that these Required Actions are not applicable if both doors in the same air lock are inoperable and Condition C is entered, and entry and exit of containment is permissible under the control of a dedicated individual. This changes the CTS by allowing indefinite operation with an inoperable air lock interlock mechanism, and allows entry and exit of containment under the control of a dedicated individual.

R1 RAI 3.6.2-3

The purpose of ITS 3.6.2 Condition B is to take appropriate Actions in response to inoperability of the air lock interlock mechanism. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. This change provides additional allowances for the air lock interlock mechanism which does not determine whether or not the air lock can perform its function. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

3.6.2 Containment Air Locks

10.	DOC L.2
(3.6.2-4)	DOC L.4
	CTS 3.6.1.3 ACTIONS
	ITS 3.6.2 Required Actions A.3 and B.3 Note and Associated Bases

NRC RAI: DOC L.4 discusses the addition of ITS 3.6.2 Required Actions A.3 and B.3 Note to CTS 3.6.1.3 ACTIONS. However, the CTS markup only shows the addition of ITS 3.6.2 Required Action A.3 Note. DOC L.2 discusses the addition of ITS 3.6.2 Action B to CTS 3.6.1.3 ACTIONS, which would imply that the notes associated with ACTION B would be covered by this DOC. Refer to Comment Number 3.6.2-2 for a similar type of concern. **Comment:** Revise the CTS markup and DOCs to reflect this change correctly.

Response: The Company will take the action proposed in the Comment, with certain modifications. ITS 3.6.2 DOC L.4 is modified, deleting references to Condition B. The notes associated with Condition B are addressed as part of DOC L.2, which adds Condition B to the CTS.

L.3 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable. ITS 3.6.2 Required Action A NOTE 2 states, "Entry and exit is permissible for 7 days under administrative controls." This changes CTS by allowing entry and exit of containment under specified criteria for any reason.

RAI 3.6.2-2 3.6.2-5 3.6.2-6 R1

The purpose of ITS 3.6.2 NOTE 2 of Action A is to provide reasonable access to containment when both air locks are inoperable. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. Actions for safe operation of the air lock must still be taken, and controls are placed on the use of the air lock commensurate with the importance of the air lock being able to perform its safety function. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.4 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not address how to verify locked closed air lock doors in high radiation areas. ITS 3.6.2 Required Action A.3 contains a NOTE that provides an allowance for air lock doors in high radiation areas to be verified locked closed by administrative means when a containment air lock door or containment air lock interlock mechanism is inoperable. This changes CTS by allowing an air lock door in a high radiation area to be verified closed by administrative means.

RAI 3.6.2-4 R1

The purpose of the Note in ITS 3.6.2 Required Action A.3 is to provide reasonable assurance in a safe manner that air lock doors in high radiation areas are locked closed. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. The air lock doors are still required to be verified locked closed in the affected air lock. Considering the doors are locked and located in high radiation areas whose entry is closely controlled, verifying the doors closed administratively is reasonable. This avoids the risks and potential exposure associated with additional entries into high radiation areas. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

RAI 3.6.2-4 R1

3.6.2 Containment Air Locks

11. (3.6.2-5)

DOC L.3
JFD 2
Bases JFD 7
CTS 3.6.1.3 ACTIONS
STS 3.6.2 Required Action A Note 2
ITS 3.6.2 Action Note 1, Required Action A Note 2 and Associated Bases

NRC RAI: DOC L.3 states the following: "CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable." STS 3.6.2 Required Action A Note 2 states, 'Entry and exit is permissible for 7 days under administrative controls if both air locks are inoperable.'" The Note 2 wording in the DOC is the same as the wording for STS 3.6.2 Required Action A Note 2. However, the ITS markup for ITS 3.6.2 Required Action A Note 2 deletes the following STS/DOC L.3 words: "if both air locks are inoperable." The Bases is modified to reflect this change. This change is unacceptable and changes the intent of the note. The STS Note only limits entry and exit when both air locks are inoperable; otherwise, ITS 3.6.2 ACTION Note 1 applies. The proposed ITS markup change would limit entry and exit whether one airlock or both airlocks are inoperable. **Comment:** Revise the ITS markup to retain the STS wording.

Response: The Company does not agree with the action recommended in the Comment. The ITS as submitted meets the intent of the ISTS because of the plant design of the two containment air locks. Limiting the use of the allowance in ISTS 3.6.3 Condition A Required Actions Note 1 to the bracketed criteria of only when both air locks are inoperable would mean the allowance would not be used for the purposes described in the ISTS 3.6.2. Bases. As the 3.6.2 Bases JFD 7 explains:

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.

The Bases for NOTE 2 explain that, "Containment entry may be required on a periodic basis to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above." The routine activities described by the ISTS Bases would not be activities the plant would perform using the emergency airlock because of the airlock's size and configuration, and the requirements and potential hazards associated with entering a subatmospheric containment. Also, in the ISTS, the phrase "if both air locks are inoperable" is bracketed. Thus, it was determined to be a bracketed requirement not applicable to North Anna.

DOC L.3 will be modified to delete the phrase, "if both air locks are inoperable."

The smooth copy of the Bases for Required Actions A.1, A.2 and A.3 are corrected to reflect this change.

BASES

ACTIONS (continued)

A.1, A.2, and A.3

With one air lock door in one or more containment air locks inoperable, the OPERABLE door must be verified closed (Required Action A.1) in each affected containment air lock. This ensures that a leak tight containment barrier is maintained by the use of an OPERABLE air lock door. This action must be completed within 1 hour. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the OPERABLE air lock door within the 24 hour Completion Time. The 24 hour Completion Time is reasonable for locking the OPERABLE air lock door, considering the OPERABLE door of the affected air lock is being maintained closed.

Required Action A.3 verifies that an air lock with an inoperable door has been isolated by the use of a locked and closed OPERABLE air lock door. This ensures that an acceptable containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the same air lock are inoperable. With both doors in the same air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls if the air lock has an inoperable door. This 7 day restriction RAI 3.6.2-5 R1

(continued)

BASES

ACTIONS

A.1, A.2, and A.3 (continued)

begins when the air lock door is discovered inoperable. Containment entry may be required on a periodic basis to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the containment during the short time that the OPERABLE door is expected to be open. RAI 3.6.2-5 R1

B.1, B.2, and B.3

With an air lock interlock mechanism inoperable in one or more air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the same air lock are inoperable. With both doors in the same air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. Note 2 allows entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock).

Required Action B.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

L.3 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable. ITS 3.6.2 Required Action A NOTE 2 states, "Entry and exit is permissible for 7 days under administrative controls." This changes CTS by allowing entry and exit of containment under specified criteria for any reason. RAI 3.6.2-2 3.6.2-5 3.6.2-6 R1

The purpose of ITS 3.6.2 NOTE 2 of Action A is to provide reasonable access to containment when both air locks are inoperable. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. Actions for safe operation of the air lock must still be taken, and controls are placed on the use of the air lock commensurate with the importance of the air lock being able to perform its safety function. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.4 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not address how to verify locked closed air lock doors in high radiation areas. ITS 3.6.2 Required Action A.3 contains a NOTE that provides an allowance for air lock doors in high radiation areas to be verified locked closed by administrative means when a containment air lock door or containment air lock interlock mechanism is inoperable. This changes CTS by allowing an air lock door in a high radiation area to be verified closed by administrative means. RAI 3.6.2-4 R1

The purpose of the Note in ITS 3.6.2 Required Action A.3 is to provide reasonable assurance in a safe manner that air lock doors in high radiation areas are locked closed. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. The air lock doors are still required to be verified locked closed in the affected air lock. Considering the doors are locked and located in high radiation areas whose entry is closely controlled, verifying the doors closed administratively is reasonable. This avoids the risks and potential exposure associated with additional entries into high radiation areas. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS. RAI 3.6.2-4 R1

3.6.2 Containment Air Locks

12. DOC L.3
(3.6.2-6) CTS 3.6.1.3 ACTIONS
ITS 3.6.2 Required Actions A and B Note 2 and Associated Bases

NRC RAI: DOC L.3 states the following: "CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable... ITS 3.6.2 Required Action B Note 2 states, 'Entry and exit of containment is permissible under the control of a dedicated individual.' This changes CTS by allowing entry and exit of containment under specified criteria for any reason if both air locks are inoperable." This last sentence is not entirely correct. While it is a true statement with regards to ITS 3.6.2 Required Action A Note 2 as modified by Comment Number 3.6.2-5, it is not true for ITS 3.6.2 Required Action B Note 2. ITS 3.6.2 Required Action B Note 2 and its associated Bases do not limit the Note's applicability to only both air locks with inoperable interlock mechanisms. The note also applies if one air lock interlock mechanism is inoperable. **Comment:** Revise DOC L.3 to correct this error.

Response: The Company will take the action proposed in the Comment, with certain modifications. ITS 3.6.2 DOC L.3 is modified, deleting references to Condition B. The reference in the Unit 1 CTS markup is modified to only reflect Condition A in relation to DOC A.7 and DOC L.3. The notes associated with Condition B are addressed as part of DOC L.2, which adds Condition B to the CTS.

(A.1)

ITS — ITS 3.6.2

02-09-96

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

(A.1)

3.6.2 — 3.6.1.3 ~~Each~~ Two containment air lock(s) shall be OPERABLE with: (LA.1)

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 (A.8)

b. An overall air lock leakage rate of less than or equal to 0.05 L_a 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 (A.7) (L.3) RAI 3.6.2-2

ACTION: (A.5) 3.6.2-6

a. With one or more containment air lock(s) with one containment air lock door inoperable: (M.1) R1

Action A.1 — 1. Maintain at least the OPERABLE air lock door closed within 1 hour and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed. (A.2)

Action A.2 (A.1)

Action A.3 — 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 (A.4) (L.4)

Action D.1 / Action D.2 — 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (A.3)

Add Proposed Condition B — 4. The provisions of Specification 3.0.4 are not applicable. (M.1)

Add Proposed Action C.1 — b. With one or more containment air lock(s) inoperable, except as the result of an inoperable air lock door interlock mechanism, within 1 hour 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. (L.2) (M.2)

Action C.2 / Action C.3 / Action D.1 / Action D.2 (A.5)

SURVEILLANCE REQUIREMENTS ← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 (A.9) RAI 3.6.2-10 R1

← INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2 (A.10)

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 — a. By performing leakage rate testing as required by the Containment Leakage Rate Testing Program ~~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. (A.8) See ITS 5.0 RAI 3.6.2-7

SR 3.6.2.2 — b. At least once per ~~refueling outage~~ 24 months by verifying that only one door in each air lock can be opened at a time. (L.6) R1

(L.1)

Actions NOTE 1 — * Entry and exit to repair the ~~inner~~ affected air lock ~~door~~ components, if inoperable, is allowed.

Add Proposed Actions NOTE 2 (A.5)

Add proposed Actions NOTE 3 (A.6)

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Rev. 1 R1 RAI 3.6.2-1

L.3 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not provide an allowance for entry or exit through an air lock except for repair to the inner air lock door, if inoperable. ITS 3.6.2 Required Action A NOTE 2 states, "Entry and exit is permissible for 7 days under administrative controls." This changes CTS by allowing entry and exit of containment under specified criteria for any reason. RAI 3.6.2-2 3.6.2-5 3.6.2-6 R1

The purpose of ITS 3.6.2 NOTE 2 of Action A is to provide reasonable access to containment when both air locks are inoperable. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. Actions for safe operation of the air lock must still be taken, and controls are placed on the use of the air lock commensurate with the importance of the air lock being able to perform its safety function. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.4 *(Category 4 – Relaxation of Required Action)* CTS 3.6.1.3 does not address how to verify locked closed air lock doors in high radiation areas. ITS 3.6.2 Required Action A.3 contains a NOTE that provides an allowance for air lock doors in high radiation areas to be verified locked closed by administrative means when a containment air lock door or containment air lock interlock mechanism is inoperable. This changes CTS by allowing an air lock door in a high radiation area to be verified closed by administrative means. RAI 3.6.2-4 R1

The purpose of the Note in ITS 3.6.2 Required Action A.3 is to provide reasonable assurance in a safe manner that air lock doors in high radiation areas are locked closed. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. The air lock doors are still required to be verified locked closed in the affected air lock. Considering the doors are locked and located in high radiation areas whose entry is closely controlled, verifying the doors closed administratively is reasonable. This avoids the risks and potential exposure associated with additional entries into high radiation areas. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS. RAI 3.6.2-4 R1

3.6.2 Containment Air Locks

13.	DOC L.5
(3.6.2-7)	CTS 4.6.1.3.a
	ITS 5.5.15.f

NRC RAI: CTS 4.6.1.3.a states that "The provisions of specification 4.0.2 are not applicable." The CTS markup of CTS 4.6.1.3.a shows this statement as being deleted by DOC L.5. DOC L.5 states this change allows ITS SR 3.0.2 to be applied to ITS SR 3.6.2.1. This is incorrect. The surveillance frequency for CTS 4.6.1.3.a and its corresponding ITS SR 3.6.2.1 are governed by the requirements of the Containment Leakage Rate Testing Program and 10 CFR 50 Appendix J, Option B. Thus the provisions of CTS 4.0.2/ITS SR 3.0.2 are not applicable. This is specified in ITS 5.5.15.f, which states that "Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50 Appendix J." This ITS statement and the CTS statement in CTS 4.6.1.3.a are the equivalent as agreed to in the development of TSTF-52 Rev. 3. Thus the change would be an Administrative change in moving the statement from CTS 4.6.1.3.a to ITS 5.5.15.f. **Comment:** Revise the CTS markup and provide a discussion and justification for this Administrative change.

Response: The Company will take the action proposed in the Comment, with certain modifications. The existing DOC L.5 is deleted, and the subject sentence is addressed in ITS Section 5.0.

A.1

ITS

ITS 3.6.2

02-09-96

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.2 3.6.1.3 ~~Each~~ Two containment air lock(s) shall be OPERABLE with: A.1 LA.1

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_a at P_a greater than or equal to 44.1 psig. A.8

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2 A.7 L.3 A.5 RAI 3.6.2-2 3.6.2-6

ACTION:

a. With one or more containment air lock(s with one containment air lock) door inoperable: M.1 R1

Action A.1 Action A.2 1. Maintain at least the OPERABLE air lock door closed within 1 hour and ~~either restore the inoperable air lock door to OPERABLE status~~ within 24 hours ~~or~~ lock the OPERABLE air lock door closed. A.2 A.1

Action A.3 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 A.4 L.4

Action D.1 Action D.2 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.3

4. ~~The provisions of Specification 3.0.4 are not applicable~~ M.1

Add proposed Condition B. Add proposed Action C.1 b. With ~~a~~ one or more containment air lock(s) inoperable, except as the result of an inoperable air lock door interlock mechanism or, within 1 hour 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. L.2 M.2

Action C.2 Action C.3 Action D.1 Action D.2

A.5

SURVEILLANCE REQUIREMENTS INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 A.9 A.10 RAI 3.6.2-10 R1

INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 a. 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 A.8 See ITS 5.0 RAI 3.6.2-7

SR 3.6.2.2 b. At least once per ~~refueling outage~~ 24 months by verifying that only one door in each air lock can be opened at a time. L.6 R1

Actions NOTE 1 * Entry and exit to repair the ~~inner~~ affected air lock ~~door~~ components, if inoperable, is allowed. L.1

Add Proposed Actions NOTE 2 A.5

Add proposed Actions NOTE 3 A.6

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(A.1)

ITS 3.6.2

02-09-96

ITS

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.1)

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 (LA.1)

b. An overall air lock leakage rate of less than or equal to 0.05 L_a at P_a greater than or equal to 44.1 psig. (A.8)

APPLICABILITY: MODES 1, 2, 3 and 4. Add proposed Condition A Note 1 + Note 2 (A.7) (L.3)

ACTION: or more with one containment airlock (A.5) (M.1)

a. With one containment air lock door inoperable: within 1 hour

Action A.1 Action A.2 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. (A.2) (A.1)

Action A.3 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 A3 NOTE (A.4) (L.4)

Action D.1 Action D.2 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (A.3)

Add proposed Condition B 4. The provisions of Specification 3.0.4 are not applicable. within 1 hour (M.1)

Add proposed Action C.1 Action C.2 Action C.3 Action D.1 Action D.2 b. With a containment air lock inoperable, except as the result of an inoperable air lock interlock mechanism or 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. one or more s (L.2) (M.2) (A.5)

SURVEILLANCE REQUIREMENTS INSERT PROPOSED ITS SR 3.6.2.1 NOTE 1 INSERT PROPOSED ITS SR 3.6.2.1 NOTE 2 (A.9) (A.10) RAI 3.6.2-10 R1

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

SR 3.6.2.1 a. 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 (A.8) See ITS 5.0 RAI 3.6.2-7 R1

SR 3.6.2.2 b. At least once per refueling outage 24 months by verifying that only one door in each air lock can be opened at a time. (L6)

and exit affected components (L.1)

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

Add proposed Actions NOTE 2 (A.5)

Add proposed Actions NOTE 3 (A.6)

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3.6.3 Containment Isolation Valves

29. Bases JFD 1
(3.6.3-13) STS B3.6.3 Bases - LCO
ITS B3.6.3 Bases - LCO and References

NRC RAI: The third paragraph of STS B3.6.3 Bases - LCO deals with those CIVs that are required to be closed during an accident and are in the closed position during normal operation. The last sentence in this paragraph states that these passive isolation valves/devices are listed in a plant-specific document(s). This sentence has been deleted from ITS B3.6.3 Bases - LCO. ITS changes to the STS Bases were made based on changes to the STS, on plant-specific system design, on current licensing basis as specified in the CTS, or for editorial reasons; the deletion does not seem to fall into any of these categories. This statement directs the operator/inspector to those documents that list these passive devices similar to the document that lists the automatic valves. The staff requires that this statement be retained. **Comment:** Revise the ITS markup to retain this statement modified to include specific plant documents containing the listing of the passive isolation valves/devices or if the listing of the documents is extensive, a general description of the type of documents.

Response: The Company will take the action proposed in the Comment. The subject sentence is retained, and the ITS is marked accordingly.

BASES

APPLICABLE SAFETY ANALYSES (continued)

The containment isolation valves satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA.

The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 36, 18, and 8 inch purge valves must be maintained locked, sealed, or otherwise secured closed. The valves covered by this LCO are listed along with their associated stroke times in the Technical Requirements Manual (Ref. 2).

The normally closed isolation valves are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact. These passive isolation valves/devices are those listed in Reference 2. RAI 3.6.3-13 R1

This LCO provides assurance that the containment isolation valves and purge valves will perform their designed safety functions to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

ACTIONS

The ACTIONS are modified by a Note allowing penetration flow paths, except for 36 inch purge and exhaust valve, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction penetration flow paths, to be unisolated intermittently under administrative

(continued)

BASES (continued)

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA.

locked, ,or otherwise secured 36, 18, and 8 (1)

The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The [42] inch purge valves must be maintained sealed closed [or have blocks installed to prevent full opening]. [Blocked purge valves also actuate on an automatic signal.] The valves covered by this LCO are listed along with their associated stroke times in the FSAR (Ref. 2). (3) (3) (1)

Technical Requirements Manual

The normally closed isolation valves are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact. These passive isolation valves/devices are those listed in Reference ~~3~~ 2. (1) RAI 3.6.3-13 R1

~~Purge valves with resilient seals [and secondary containment bypass valves] must meet additional leakage rate requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," as Type C testing.~~ (2)

This LCO provides assurance that the containment isolation valves and purge valves will perform their designed safety functions to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations."

(continued)

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3.6.3 Containment Isolation Valves

30.	Bases JFD 6
(3.6.3-14)	STS 3.6.3 ACTIONS A, B, C and Associated Bases
	ITS 3.6.3 ACTIONS A, B, C and Associated Bases

NRC RAI: The fourth sentence of STS B3.6.3 Bases - C.1 and C.2 states the following: "A check valve may not be used to isolate the affected penetration flow path." ITS B3.6.3 Bases - C.1 and C.2 deletes this sentence based on Bases JFD 6, which justifies the deletion on an UFSAR statement that check valves may be used to isolate specified penetration flow paths. This justification does not provide sufficient information to determine if the change is acceptable. ITS 3.6.3 ACTION C applies to those penetrations with a single isolation valve and a closed system. The staff agrees that most penetrations can be isolated by a check valve as one of the containment isolation valves. This is stated in 10 CFR 50 Appendix A, General Design Criteria (GDC) 55, and 56. It is also allowed in STS/ITS 3.6.3 Required Action A.1. Refer to Comment Number 3.6.3-19. However, it is not allowed by the Required Action wording for STS/ITS 3.6.3 Required Action B.1 and STS/ITS 3.6.3 Required Action C.1. In the former Required Action, the associated Bases states the reason that check valves are not used: the penetration must be isolated using a device that cannot be adversely affected by a single active failure. A check valve by its design would not meet this criteria. In the latter case 10 CFR 50 Appendix A GDC 57 applies, which states that a check valve cannot be used as the automatic isolation device for penetrations with a single valve and a closed system. The reasoning would be the same as given above. Unless the staff approved the use of check valves to isolate GDC 57 type penetrations, the STS statement needs to be retained. Refer to Comment Number 3.6.3-18. **Comment:** Delete this change.

Response: The sentence in the ISTS 3.6.3 Bases for ACTIONS C.1 and C.2 will be retained, but modified consistent with an exception to the sentence, which is provided in UFSAR section 6.4.2.1. JFD 6 will be modified accordingly. The NAPS UFSAR Chapter 3 and GDC 57 both state that the valve credited as the containment isolation valve in conjunction with a closed system shall be an outside valve, and a simple check valve may not be used as the automatic isolation valve. NAPS UFSAR Section 6.4.2.1 explains that GDC 55, 56, and 57 had not been promulgated when the four specified penetrations, which use check valves outside the containment as isolation valves, were designed. These penetrations constitute exceptions taken to GDC 55, 56, and 57, and are considered to meet GDC 53 (July 10, 1967), in effect at the time of design.

ACTIONS

C.1 and C.2 (continued)

failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration flow path, with the exception of valves specified in Reference 4. Required Action C.1 must be completed within the 72 hour Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4. In the event the affected penetration flow path is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

RAI 3.6.3-14 R1

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements of Reference 3. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

Required Action C.2 is modified by two Notes. Note 1 applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

BASES

SURVEILLANCE REQUIREMENTS (continued)	SR 3.6.3.6 (continued) these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation. RAI 3.6.3-2 RAI 3.6.1-5 R1
REFERENCES	1. UFSAR, Chapter 15. 2. Technical Requirements Manual. 3. Standard Review Plan 6.2.4. 4. UFSAR, Section 6.2.4.2. RAI 3.6.3-14 R1

2

BASES

ACTIONS (continued)

C.1 and C.2

With one or more penetration flow paths with one containment isolation valve inoperable, the inoperable valve flow path must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration flow path. Required Action C.1 must be completed within the [4] hour Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4. In the event the affected penetration flow path is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

with the exception of valves specified in Reference 4. (6)

RI RAI 3.6.3-14

(72) TSTF-30

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

The closed system must meet the requirements of Reference 3.

TSTF-30

Required Action C.2 is modified by ~~a~~ two Note~~s~~ ~~that~~ applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

Note 1

TSTF-269

Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertently repositioned,

(continued)

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 (2)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.3.11 (continued)

maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. This method of quantifying maximum pathway leakage is only to be used for this SR (i.e., Appendix J maximum pathway leakage limits are to be quantified in accordance with Appendix J). The Frequency is required by 10 CFR 50, Appendix J, as modified by approved exemptions (and therefore, the Frequency extensions of SR 3.0.2 may not be applied), since the testing is an Appendix J, Type C test. This SR simply imposes additional acceptance criteria.

Containment Leakage Rate Testing Program, the

(2) TSTF-52

[By pass leakage is considered part of L_a. [Reviewer's Note: Unless specifically exempted].]

REFERENCES

1. (3) FSAR, Chapter ~~Section~~ [15]. (3) (1)

2. FSAR, Section [6.2]. Technical Requirements Manual. (1)

3. Generic Issue B-20, "Containment Leakage Due to Seal Deterioration." (1)

4. Generic Issue B-24.

3. Standard Review Plan 6.2.4 TSTF-30

4. UFSAR, Section 6.4.2.1. (6) RAI 3.6.3-14 R1

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JUSTIFICATION FOR DEVIATIONS
ITS 3.6.3 BASES, CONTAINMENT ISOLATION VALVES

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. Typographical/grammatical error corrected.

6. The sentence in the ACTIONS C.1 and C.2 Bases, "A check valve may not be used to isolate the affected penetration flow path" is modified. The phrase, ", with the exception of valves specified in Reference 4" is added to the sentence. Reference 4, UFSAR section 6.4.2.1, is added to the References. UFSAR section 6.4.2.1 specifies four containment penetrations which use check valves outside of containment in conjunction with a closed system. RAI 3.6.3-14 R1

7. The Bases are corrected to eliminate a statement classifying check valves as active devices. The statement is inconsistent with the NAPS design basis.

3.6.3 Containment Isolation Valves

31.	CTS 3.6.3.1 and Associated *Footnote
(3.6.3-15)	CTS 3.6.5.1
	ITS 3.6.3 ACTIONS, Note 1 and Associated Bases

NRC RAI: The *Footnote associated with CTS 3.6.3.1 allows locked or sealed closed valves to be opened intermittently under administrative controls. The corresponding ITS note is ITS 3.6.3 ACTION Note 1. The ITS Note allows any closed valve (manual, automatic, locked, not locked, etc.) to be opened intermittently. It also allows valves closed by the ACTIONS to be opened. The CTS only limits valve opening to locked or sealed valves, and does not apply to the ACTION statement. These Less Restrictive (L) changes have not been justified. **Comment:** Revise the CTS markup and provide a discussion and justification for these Less Restrictive (L) changes.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified and DOC L.9 added to address extending the allowance to intermittently open valves under administrative control to any valves, not only those that are locked or sealed.

ITS

CONTAINMENT SYSTEMS 4-22-94

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: Insert proposed Action Note 3 A.2
Insert proposed Action Note 4 A.3

Actions Note 2, Condition A Note, Condition C Note

With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: A.8 A.11 R1 RAI 3.6.3-16

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ A.4

Action A.1, Action C.1 b. Isolate each affected penetration within ~~4~~ 72 hours by use of at least one deactivated automatic valve secured in the isolation position, or only Action C.1 RAI 3.6.3-17 R1 L.3

Action A.1, Action C.1 c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or check valve with flow through the valve secured; or

Insert proposed Condition B A.5

Action D.1, Action D.2 d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

only Action A.1 L.10 RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ A.6

SURVEILLANCE REQUIREMENTS Insert proposed ACTIONS A.2 and C.2 M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ A.10

Action Note 1

* ~~Locked or sealed closed valves~~ Penetration flowpaths, except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flowpaths, may be opened on an intermittent basis under administrative control. M.2 L.9 R1 RAI 3.6.3-15

A.1

ITS 3.6.3

ITS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 **3.6.3.1** Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:
Insert proposed Action Note 3 — A.2
Insert proposed Action Note 4 — A.3

Action NOTE 2 — With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: — A.8, A.11, A.4 RAI 3.6.3-16 R1

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~

Action A.1, Action C.1 — b. Isolate each affected penetration within 4 hours ~~by use of at least one deactivated automatic valve secured in the isolation position, or~~ — only Action C.1 — RAI 3.6.3-17 R1

Action A.1, Action C.1 — c. Isolate each affected penetration within 4 (72) hours by use of at least one closed manual valve or blind flange; or — L.3

INSERT proposed Condition B — A.5

Action D.1, Action D.2 — d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

only Action A.1 — , or check valve with flow through the valve secured — L.10 RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ — A.6

SURVEILLANCE REQUIREMENTS

Insert proposed ACTIONS A.2 and C.2 — M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ — A.10

b. ~~Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time.~~ — L.1

Action Note 1 — * ~~Locked or sealed closed valves~~ Penetration flow paths may be opened on an intermittent basis under administrative control. — L.9 RAI 3.6.3-15 R1

except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths. — M.2

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L.8 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.5.1.2 states, "The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F." ITS SR 3.6.3.2 states, "Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls." The Frequency is prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. This changes the CTS by adding the criteria to the Frequency that the verification may be performed up to 92 days prior to entering MODE 4 from MODE 5. Changes associated with valves which are locked, sealed, or otherwise secured are addressed by DOC L.6. RAI 3.6.3-10 R1

The purpose of CTS 4.6.5.1.1 is to provide assurance that steam jet air ejector suction line inside isolation valve required to be closed is closed. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The change allows the valve to be verified closed up to 92 days prior to entering MODE 4 from MODE 5. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.9 *(Category 1 – Relaxation of LCO Requirements)* CTS 3.6.3.1 footnote "*" states, "Locked or sealed closed valves may be opened on an intermittent basis under administrative control." ITS 3.6.3 Action Note 1 states, " Penetration flow paths, except for 36 inch purge and exhaust valve, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths, may be unisolated on an intermittent basis under administrative control." This changes the CTS by allowing any penetration, except for the exceptions noted, to be unisolated on an intermittent basis under administrative control, and not just locked or sealed closed valves. Changes associated with the exceptions to this allowance listed are addressed by DOC M.2. RAI 3.6.3-15 R1

The purpose of the CTS 3.6.3.1 footnote "*" is to provide reasonable operational flexibility regarding containment penetrations. This change is acceptable because the LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. This change allows any penetration flow path, and not just locked or sealed closed valves to be opened on an intermittent basis under administrative control, except for the specific exceptions listed. The administrative controls used provide the same level of protection whether the flow paths include locked or sealed closed valves or not. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

L.10 *(Category 4 – Relaxation of Required Action)* CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable...b. Isolate each affected penetration within RAI 3.6.3-18 R1

3.6.3 Containment Isolation Valves

32. CTS 3.6.3.1 ACTION
(3.6.3-16) ITS 3.6.3 ACTIONS and Associated Bases

NRC RAI: CTS 3.6.3.1 requires that with one or more valves inoperable that one "maintain at least one isolation valve OPERABLE in each affected penetration that is open." The ITS 3.6.3 ACTIONS do not contain this statement. The CTS shows this requirement as being retained. Even though the ITS does not contain this statement, it is implied in actions associated with ITS 3.6.3 ACTIONS A and C. **Comment:** Revise the CTS markup and provide a discussion and justification for this Administrative change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified and DOC A.11 is added explaining how the CTS requirement to maintain at least one isolation valve OPERABLE in each affected penetration that is open is addressed in ITS 3.6.3.

A.1

ITS 3.6.3

ITS

CONTAINMENT SYSTEMS 4-22-94

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: Insert proposed Action Note 3 A.2
Insert proposed Action Note 4 A.3

Actions Note 2, Condition A Note, Condition C Note

With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: A.8 A.11 R1 RAI 3.6.3-16

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ A.4

Action A.1, Action C.1

b. Isolate each affected penetration within ~~4~~ 72 hours by use of at least one deactivated automatic valve secured in the isolation position, or only Action C.1 RAI 3.6.3-17 R1 L.3

Action A.1, Action C.1

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or check valve with flow through the valve secured; or

Insert proposed Condition B A.5

Action D.1, Action D.2

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

only Action A.1 L.10 RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ A.6

SURVEILLANCE REQUIREMENTS Insert proposed ACTIONS A.2 and C.2 M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ A.10

Action Note 1

* ~~Locked or sealed closed valves~~ Penetration flowpaths, except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flowpaths, may be opened on an intermittent basis under administrative control. M.2 L.9 R1 RAI 3.6.3-15

A.1

ITS 3.6.3

CONTAINMENT SYSTEMS

4-22-94

ITS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3

3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Insert proposed Action Note 3 (A.2)

Insert proposed Action Note 4 (A.3)

Action NOTE 2

With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: (A.8) (A.11) (A.4) RAI 3.6.3-16 R1

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, ~~or~~

Action A.1
Action C.1

b. Isolate each affected penetration within ~~4~~ 72 hours by use of at least one deactivated automatic valve secured in the isolation position, or (only Action C.1) RAI 3.6.3-17 R1

Action A.1
Action C.1

c. Isolate each affected penetration within ~~4~~ 72 hours by use of at least one closed manual valve or blind flange; or (L.3)

INSERT proposed Condition B (A.5)

Action D.1
Action D.2

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (L.10) RAI 3.6.3-18 R1

only Action A.1 , or check valve with flow through the valve secured

~~The provisions of Specification 3.0.4 do not apply.~~ (A.6)

SURVEILLANCE REQUIREMENTS

Insert proposed ACTIONS A.2 and C.2 (M.1)

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ (A.10)

b. ~~Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time.~~ (L.1)

Action Note 1

* ~~Locked or sealed closed valves~~ Penetration flow paths except for 36 inch purge and exhaust valves 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths. may be opened on an intermittent basis under administrative control. (L.9) RAI 3.6.3-15 R1 (M.2)

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A.10 CTS 4.6.3.1.1.a requires testing of each containment isolation valve that is a weight or spring loaded check valve testable during unit operation every 92 days. The ITS does not contain this Surveillance. This changes the CTS by eliminating this Surveillance.

This change is acceptable because the technical requirements have not changed. North Anna does not contain any containment isolation valves that are weight or spring loaded check valves which are testable during unit operation. Therefore, this surveillance is never performed. This change is designated as administrative because it does not result in technical changes to the CTS.

A.11 CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open..." ITS Conditions A and B Notes state, "Only applicable to penetration flow paths with two containment isolation valves." ITS Condition C Note states, "Only applicable to penetration flow paths with only one containment isolation valve and a closed system." ITS Condition ITS 3.6.3 Required Actions A.1 and C.1 require the associated flow path be isolated by one of the means specified with one or more penetration flow paths with one containment isolation valve inoperable. ITS 3.6.3 Required Actions A.1 and C.1 both assume the other isolation valve or closed system are OPERABLE for the isolation function. If two valves in a penetration flow path with two containment isolation valves are inoperable, Required Action B.1 requires the penetration be isolated within one hour, or Condition D is entered, requiring the unit be placed in MODE 3 within 6 hours, and MODE 5 within 36 hours. In a penetration flow path with one containment isolation valve and a closed system, where the containment isolation valve and the closed system were not capable of performing the isolation function, ITS LCO 3.0.3 would be entered. This changes CTS by incorporating the concept of assuring that the second means of containment isolation for a penetration flow path is OPERABLE into the Conditions and Required Actions associated with ITS 3.6.3.

RAI
3.6.3-16
R1

This change is acceptable because when one means of isolating a containment flow path is inoperable, the other must be OPERABLE, or the ITS requires Required Actions be taken for two inoperable means of isolating a containment flow path, rather than allowing the Completion Times associated with one inoperable means of isolating a containment flow path. This retains the CTS 3.6.3.1 concept of maintaining at least one isolation valve OPERABLE in each affected penetration that is open when one or more isolation valves are inoperable. This change is designated as administrative because it does not result in technical changes to the CTS.

A.12 CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." The Applicability is MODES 1, 2, 3, and 4. The Frequency for ITS SR 3.6.3.4 states, "Prior to entering MODE 4 from MODE 5 after containment vacuum has been broken. This changes the CTS by adopting the ISTS Frequency format for such a Surveillance Requirement, clarifying

RAI
3.6.1-5
3.6.3-2
R1

3.6.3 Containment Isolation Valves

33. CTS 3.6.3.1 ACTIONS
(3.6.3-17) ITS 3.6.3 ACTIONS A, C and Associated Bases

NRC RAI: CTS 3.6.3.1 ACTIONS do not differentiate between the types of penetrations. ITS 3.6.3 ACTIONS A and C apply to different types of penetrations as can be seen by the Condition note. The CTS markup does not show or justify this breakup of the CTS and the addition of the Condition Notes. **Comment:** Revise the CTS markup and provide a discussion and justification for this Administrative change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC L.3 justifies the changes associated with the breakup of requirements represented by ITS 3.6.3 Condition A and Condition C.

A.1

ITS 3.6.3

ITS

CONTAINMENT SYSTEMS 4-22-94

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 **3.6.3.1** Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: Insert proposed Action Note 3 A.2
Insert proposed Action Note 4 A.3

Actions Note 2, Condition A Note, Condition C Note

With one or more of the isolation valves inoperable, maintain at least one (the other) isolation valve OPERABLE in each affected penetration that is open and: A.8 A.11 A.4 R1 RAI 3.6.3-16

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~

Action A.1, Action C.1 — b. Isolate each affected penetration within 4 (72) hours by use of at least one deactivated automatic valve secured in the isolation position, or — only Action C.1, L.3, RAI 3.6.3-17 R1

Action A.1, Action C.1 — c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or check valve with flow through the valve secured; or

Insert proposed Condition B

Action D.1, Action D.2 — d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.5

only Action A.1

~~The provisions of Specification 3.0.4 do not apply.~~ L.10 RAI 3.6.3-18 R1 A.6

SURVEILLANCE REQUIREMENTS Insert proposed ACTIONS A.2 and C.2 M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ A.10

Action Note 1

* Locked or sealed closed valves (Penetration flowpaths), except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flowpaths, may be opened on an intermittent basis under administrative control. M.2 L.9 R1 RAI 3.6.3-15

(A.1) ITS 3.6.3

ITS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Insert proposed Action Note 3 (A.2)

Insert proposed Action Note 4 (A.3)

Action NOTE 2 With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: (A.8) (A.11) RAI 3.6.3-16 R1

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~ (A.4)

Action A.1 Action C.1 b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or (only Action C.1: 72) RAI 3.6.3-17 R1

Action A.1 Action C.1 c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or (L.3)

INSERT proposed Condition B (A.5)

Action D.1 Action D.2 d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

only Action A.1: , or check valve with flow through the valve secured (L.10) RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ (A.6)

SURVEILLANCE REQUIREMENTS

Insert proposed ACTIONS A.2 and C.2 (M.1)

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ (A.10)

~~b. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time.~~ (L.1)

Action Note 1 * ~~Locked or sealed closed valves~~ Penetration flow path(s) may be opened on an intermittent basis under administrative control. (L.9) RAI 3.6.3-15 R1

except for 36 inch purge and exhaust valves 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths. (M.2)

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3.6.3 Containment Isolation Valves

34. CTS 3.6.3.1 ACTIONS
(3.6.3-18) ITS 3.6.3 Required Action A.1 and Associated Bases

NRC RAI: CTS 3.6.3.1 ACTIONS b and c specify how to isolate each affected penetration with an inoperable containment isolation valve; i.e., a closed deactivated automatic valve, a closed manual valve, or a blind flange. ITS 3.6.3 Required Action A.1 also used these methods, but it also allows a "check valve with flow through the valve secured." The CTS markup does not show or justify this Less Restrictive (L) change. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC L.10 is added to address adding the phrase, "check valve with flow through the valve secured."

A.1

ITS 3.6.3

ITS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: Insert proposed Action Note 3 A.2
Insert proposed Action Note 4 A.3

Actions Note 2, Condition A Note, Condition C Note

With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: A.8 A.11 A.4 R1 RAI 3.6.3-16

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~

Action A.1 Action C.1 b. Isolate each affected penetration within ~~4~~ 72 hours by use of at least one deactivated automatic valve secured in the isolation position, or only Action C.1 L.3 RAI 3.6.3-17 R1

Action A.1 Action C.1 c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or check valve with flow through the valve secured; or

Insert proposed Condition B

Action D.1 Action D.2 d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.5

only Action A.1 L.10 RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ A.6

SURVEILLANCE REQUIREMENTS Insert proposed ACTIONS A.2 and C.2 M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ A.10

Action Note 1

* ~~Locked or sealed closed valves~~ Penetration flow path(s), except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flowpaths, may be opened on an intermittent basis under administrative control. M.2 L.9 R1 RAI 3.6.3-15

ITS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: Insert proposed Action Note 3 A.2
Insert proposed Action Note 4 A.3

Action NOTE 2 With one or more of the isolation valves inoperable, maintain ~~at least one~~ the other isolation valve OPERABLE in each affected penetration that is open and: A.8 A.11 A.4 RAI 3.6.3-16 R1

a. ~~Restore the inoperable valve(s) to OPERABLE status within 4 hours, or~~

Action A.1 Action C.1 b. Isolate each affected penetration within 4 72 hours by use of at least one deactivated automatic valve secured in the isolation position, or only Action C.1 RAI 3.6.3-17 R1

Action A.1 Action C.1 c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or check valve with flow through the valve secured; or L.3 (only Action A.1)

INSERT proposed Condition B A.5

Action D.1 Action D.2 d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. L.10 RAI 3.6.3-18 R1

~~The provisions of Specification 3.0.4 do not apply.~~ A.6

SURVEILLANCE REQUIREMENTS

Insert proposed ACTIONS A.2 and C.2 M.1

~~4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE:~~

~~a. At least once per 92 days by cycling each weight or spring loaded check valve testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid.~~ A.10

~~b. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time.~~ L.1

Action Note 1 * ~~Locked or sealed closed valves~~ Penetration flow paths, except for 36 inch purge and exhaust valves, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths, may be opened on an intermittent basis under administrative control. L.9 RAI 3.6.3-15 R1 M.2

L.8 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.6.5.1.2 states, "The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F." ITS SR 3.6.3.2 states, "Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls." The Frequency is prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. This changes the CTS by adding the criteria to the Frequency that the verification may be performed up to 92 days prior to entering MODE 4 from MODE 5. Changes associated with valves which are locked, sealed, or otherwise secured are addressed by DOC L.6. RAI 3.6.3-10 R1

The purpose of CTS 4.6.5.1.1 is to provide assurance that steam jet air ejector suction line inside isolation valve required to be closed is closed. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The change allows the valve to be verified closed up to 92 days prior to entering MODE 4 from MODE 5. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.9 *(Category 1 – Relaxation of LCO Requirements)* CTS 3.6.3.1 footnote "*" states, "Locked or sealed closed valves may be opened on an intermittent basis under administrative control." ITS 3.6.3 Action Note 1 states, " Penetration flow paths, except for 36 inch purge and exhaust valve, 18 inch containment vacuum breaking valve, 8 inch purge bypass valve, and steam jet air ejector suction flow paths, may be unisolated on an intermittent basis under administrative control." This changes the CTS by allowing any penetration, except for the exceptions noted, to be unisolated on an intermittent basis under administrative control, and not just locked or sealed closed valves. Changes associated with the exceptions to this allowance listed are addressed by DOC M.2. RAI 3.6.3-15 R1

The purpose of the CTS 3.6.3.1 footnote "*" is to provide reasonable operational flexibility regarding containment penetrations. This change is acceptable because the LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. This change allows any penetration flow path, and not just locked or sealed closed valves to be opened on an intermittent basis under administrative control, except for the specific exceptions listed. The administrative controls used provide the same level of protection whether the flow paths include locked or sealed closed valves or not. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

L.10 *(Category 4 – Relaxation of Required Action)* CTS 3.6.3.1 Action states, "With one or more of the isolation valves inoperable...b. Isolate each affected penetration within RAI 3.6.3-18 R1

4 hours by use of at least one deactivated automatic valve secured in the isolation position, or c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange..." ITS 3.6.3 Action A.1 requires that with one or more penetration flow paths with one containment isolation valve inoperable, the affected isolation flow path be isolated by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. This changes CTS by allowing penetration flow paths with two containment isolation valves that have one containment isolation valve inoperable, to use a check valve with flow through the valve secured as the means of isolating the penetration flow path. RAI 3.6.3-18 R1

The purpose of CTS 3.6.3.1 Actions b and c is to provide assurance that the affected penetration flow path is isolated. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. This change allows the flow path to be isolated by one check valve with flow through the valve secured. The requirement to isolate the flow path is retained, and using a check valve is an appropriate method of isolation. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.11 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE...by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by not requiring valves locked, sealed or otherwise secured in position be tested to automatically actuate to their isolation position. Changes associated with moving details to the Bases are addressed by DOC LA.3. Changes associated with allowing the use of an actual signal for conducting the Surveillance Requirement are addressed by DOC L.12. RAI 3.6.3-19 R1

The purpose of CTS 4.6.3.1.2.a and b is provide assurance that the power operated automatic valves required to actuate in case of a DBA isolate containment properly. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Automatic

3.6.3 Containment Isolation Valves

35. CTS 4.6.3.1.2.a
(3.6.3-19) CTS 4.6.3.1.2.b
ITS SR 3.6.3.4 and Associated Bases

NRC RAI: CTS 4.6.3.1.2.a and CTS 4.6.3.1.2.b verify that all automatic containment isolation valves actuate to the isolation position on a test signal. The corresponding ITS SR is ITS SR 3.6.3.4, which verifies only those automatic CIVs that are not locked, sealed or otherwise secured in position actuate to the isolation position. The ITS SR is less restrictive than the CTS in that not all valves are tested. The CTS markup does not show or justify this Less Restrictive (L) change. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC L.11 is added to address the fact that not all automatic containment isolation valves will be tested to verify that they automatically actuate.

ITS

SURVEILLANCE REQUIREMENTS (Continued)

b. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time. L.1

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by: LA.1

SR 3.6.3.5 a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuator actuates to its isolation position. L.12 RAI 3.6.3-2 3.6.3-20 R1

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuator actuates to its isolation position. LA.3

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <see ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 ~~4.6.3.1.3~~ The isolation time of each power operated or automatic containment isolation valve not locked, sealed or otherwise secured in position, shall be determined to be within its limit when tested ~~pursuant to Specification 4.0.5~~ in accordance with the Inservice Testing Program L.13 RAI 3.6.3-21 R1 L.11 RAI 3.6.3-19 R1 A.7

(A.1)

ITS 3.6.3

ITS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE ~~during the COLD SHUTDOWN or REFUELING MODE~~ at least once per 18 months by: LA.1

L.12 RAI 3.6.3-20 3.6.3-2 R1

SR 3.6.3.5

a. Verifying that on a ~~Phase A containment isolation~~ actuator test signal, each ~~Phase A~~ isolation valve actuates to its isolation position.

b. Verifying that on a ~~Phase B containment isolation~~ actuation test signal, each ~~Phase B~~ isolation valve actuates to its isolation position. LA.3

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <See ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 ~~4.6.3.1.3~~ The isolation time of each ~~power operated or~~ automatic not locked, sealed or otherwise secured in position containment isolation valve shall be determined to be within its limit when tested ~~pursuant to Specification 4.0.5.~~ in accordance with the Inservice Testing Program

L.13 RAI 3.6.3-21 R1

L.11 RAI 3.6.3-19 R1

A.7

4 hours by use of at least one deactivated automatic valve secured in the isolation position, or c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange..." ITS 3.6.3 Action A.1 requires that with one or more penetration flow paths with one containment isolation valve inoperable, the affected isolation flow path be isolated by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. This changes CTS by allowing penetration flow paths with two containment isolation valves that have one containment isolation valve inoperable, to use a check valve with flow through the valve secured as the means of isolating the penetration flow path.

RAI 3.6.3-18 R1

The purpose of CTS 3.6.3.1 Actions b and c is to provide assurance that the affected penetration flow path is isolated. This change is acceptable because the Required Actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The Required Actions are consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the repair period. This change allows the flow path to be isolated by one check valve with flow through the valve secured. The requirement to isolate the flow path is retained, and using a check valve is an appropriate method of isolation. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.11 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE…by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by not requiring valves locked, sealed or otherwise secured in position be tested to automatically actuate to their isolation position. Changes associated with moving details to the Bases are addressed by DOC LA.3. Changes associated with allowing the use of an actual signal for conducting the Surveillance Requirement are addressed by DOC L.12.

RAI 3.6.3-19 R1

The purpose of CTS 4.6.3.1.2.a and b is provide assurance that the power operated automatic valves required to actuate in case of a DBA isolate containment properly. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Automatic

power operated valves already in the isolated position are not required to be tested to automatically actuate because in case of a DBA, they are already in their required position. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

RAI 3.6.3-19 R1

L.12 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE…by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by not requiring valves locked, sealed or otherwise secured in position be tested to automatically actuate to their isolation position. Changes associated with moving details to the Bases are addressed by DOC LA.3. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11.

RAI 3.6.3-20 R1

The purpose of CTS 4.6.3.1.2.a and b is to verify that the required isolation valves automatically actuate properly in response to an actuation signal. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The valves do not perform differently when actuated by an "actual" or "simulated" signal and, therefore, the results of the testing are unaffected by the type of signal used to initiate the test. This change allows taking credit for unplanned actuations if sufficient information is collected to satisfy the surveillance test requirements. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

L.13 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.3 states, "The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested…" ITS SR 3.6.3.3 states, "Verify the isolation time of each automatic power operated containment isolation valve is within limits." This changes the CTS by deleting the reference to power operated containment isolation valves that may not be automatic.

RAI 3.6.3-21 R1

The purpose of CTS 4.6.3.1.3 is to provide assurance that valve actuate within the times assumed in the DBA analyses. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Remote manual power operated valves do not have an isolation time assumed in the DBA analyses since they require operator action. Deleting reference to power isolation valve time testing reduces the potential for

3.6.3 Containment Isolation Valves

36. CTS 4.6.3.1.2.a
(3.6.3-20) CTS 4.6.3.1.2.b
ITS SR 3.6.3.4 and Associated Bases

NRC RAI: CTS 4.6.3.1.2.a and CTS 4.6.3.1.2.b verify that all automatic CIVs actuate to the isolation position on either a Phase A or Phase B containment isolation test signal. The corresponding ITS SR is ITS SR 3.6.3.4, which verifies only those automatic CIVs that are not locked sealed or otherwise secured in position actuate to the isolation position on an actual or simulated test signal. The ITS SR does not specify the specific actuation signal (Phase A or B) and allows an actual signal where the CTS specifies a test signal that is considered a simulated signal. The specific actuation signal specified in the CTS is discussed in the Bases for ITS 3.6.3. The CTS markup does not show or justify these Less Restrictive (LA and L respectively) changes. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for these Less Restrictive (LA and L) changes.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC LA.3 and DOC L.12 are added. DOC LA.3 addresses moving the specific containment isolation valve actuation signals to the Bases, and DOC L.12 addresses adding the allowance to use an actual signal for the Surveillance Requirement.

A.1

ITS 3.6.3

ITS

SURVEILLANCE REQUIREMENTS (Continued)

b. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time. L.1

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by: LA.1

SR 3.6.3.5 a. Verifying that on a Phase A containment isolation actuator test signal, each Phase A isolation valve actuates to its isolation position. L.12 RAI 3.6.3-2 3.6.3-20 R1

b. Verifying that on a Phase B containment isolation actuation test signal, each Phase B isolation valve actuates to its isolation position. LA.3

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <see ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR3.6.3.3 4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5. L.13 RAI 3.6.3-21 R1

not locked, sealed or otherwise secured in position, L.11 RAI 3.6.3-19 R1

in accordance with the Inservice Testing Program

A.7

(A.1)

ITS 3.6.3

ITS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE ~~during the COLD SHUTDOWN or REFUELING MODE~~ at least once per 18 months by: LA.1

SR 3.6.3.5 a. Verifying that on a ~~Phase A containment isolation~~ actuator test signal, each ~~Phase A~~ isolation valve actuates to its isolation position. L.12

b. Verifying that on a ~~Phase B containment isolation~~ actuation test signal, each ~~Phase B~~ isolation valve actuates to its isolation position. LA.3 RAI 3.6.3-20 3.6.3-2 R1

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <See ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 ~~4.6.3.1.3~~ The isolation time of each ~~power operated or~~ automatic containment isolation valve not locked, sealed or otherwise secured in position shall be determined to be within its limit when tested ~~pursuant to Specification 4.0.5.~~ in accordance with the Inservice Testing Program L.13 RAI 3.6.3-21 R1 L.11 RAI 3.6.3-19 R1 A.7

at least once per 18 months…" by means that include actuation of specified automatic valves and cycling of weight or spring loaded check valves not testable during unit operation. ITS Frequency of SR 3.6.3.5 and SR 3.6.3.6 is 18 months, and does not include the phrase, "…during COLD SHUTDOWN and REFUELING MODE…" This changes the CTS by moving the reference to the 18 month Frequency being based on the need to perform this Surveillance under the conditions that apply during a unit outage to the Bases.

The removal of these details for performing surveillance requirements from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS retains the requirement to test appropriate automatic valve actuation and check valve cycling on an 18 month Frequency. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications.

LA.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.6.5.1.1 states, "The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by visual observation…" ITS SR 3.6.3.1 does not include the reference to visual inspection. This changes the CTS by moving the detail of how the verification is performed to the Bases.

The removal of these details for performing surveillance requirements from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to perform the verification that the valves are closed. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications.

LA.3 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE…by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation

RAI 3.6.3-20 R1

valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by moving the detail concerning which signals are used to conduct the Surveillance Requirement to the Bases. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11. Changes associated with allowing the use of an actual signal for conducting the Surveillance Requirement are addressed by DOC L.12.

RAI 3.6.3-20 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to verify that the required valve automatically actuate. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.4 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.6.1.1.d states, "Each time containment integrity is established after vacuum has been broken by pressure testing the butterfly isolation valves in the containment purge lines and the containment vacuum ejector line." ITS SR 3.6.3.4 states, "Perform leakage rate testing for containment purge valves with resilient seals." This changes the CTS by moving the details specifically naming butterfly valves and the containment vacuum air ejector line to the Bases.

RAI 3.6.1-5 3.6.3-2 R1

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to perform the specified leakage rate testing for containment purge valves with resilient seals. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because information relating to system design is being removed from the Technical Specifications.

<u>LESS RESTRICTIVE CHANGES</u>

power operated valves already in the isolated position are not required to be tested to automatically actuate because in case of a DBA, they are already in their required position. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS. RAI 3.6.3-19 R1

L.12 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE…by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by not requiring valves locked, sealed or otherwise secured in position be tested to automatically actuate to their isolation position. Changes associated with moving details to the Bases are addressed by DOC LA.3. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11. RAI 3.6.3-20 R1

The purpose of CTS 4.6.3.1.2.a and b is to verify that the required isolation valves automatically actuate properly in response to an actuation signal. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The valves do not perform differently when actuated by an "actual" or "simulated" signal and, therefore, the results of the testing are unaffected by the type of signal used to initiate the test. This change allows taking credit for unplanned actuations if sufficient information is collected to satisfy the surveillance test requirements. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

L.13 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.3 states, "The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested…" ITS SR 3.6.3.3 states, "Verify the isolation time of each automatic power operated containment isolation valve is within limits." This changes the CTS by deleting the reference to power operated containment isolation valves that may not be automatic. RAI 3.6.3-21 R1

The purpose of CTS 4.6.3.1.3 is to provide assurance that valve actuate within the times assumed in the DBA analyses. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Remote manual power operated valves do not have an isolation time assumed in the DBA analyses since they require operator action. Deleting reference to power isolation valve time testing reduces the potential for

3.6.3 Containment Isolation Valves

37. (3.6.3-21)
CTS 4.6.3.1.3
STS 3.6.3.5 and Associated Bases
ITS SR 3.6.3.3 and Associated Bases

NRC RAI: CTS 4.6.3.1.3 verifies the isolation time of each power-operated or automatic CIV. The corresponding ITS SR is ITS SR 3.6.3.3, which is based on STS SR 3.6.3.5 as modified by TSTF-46. While the CTS tests all power-operated or automatic CIVs, the STS/ITS only verifies the isolation time of the automatic power-operated valves. The CTS markup does not show or justify this Less Restrictive (L) change. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for this Less Restrictive (L) change.

Response: The Company will take the action proposed in the Comment. The CTS markup is modified, and DOC L.13 is added to address changing the requirement to verify the isolation time of all power operated or automatic containment isolation valves to only verifying the isolation time of automatic power operated valves.

A.1

ITS 3.6.3

ITS

SURVEILLANCE REQUIREMENTS (Continued)

b. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of the applicable cycling test and verification of isolation time. L.1

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by: LA.1

SR 3.6.3.5

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. actuator L.12 RAI 3.6.3-2 3.6.3-20 R1

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position. actuator LA.3

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <see ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5. L.13 RAI 3.6.3-21 R1

not locked, sealed or otherwise secured in position, L.11 RAI 3.6.3-19 R1

in accordance with the Inservice Testing Program

A.7

(A.1)

ITS 3.6.3

ITS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by: LA.1

SR 3.6.3.5

a. Verifying that on a Phase A containment isolation actuator test signal, each Phase A isolation valve actuates to its isolation position. L.12 RAI 3.6.3-20

b. Verifying that on a Phase B containment isolation actuation test signal, each Phase B isolation valve actuates to its isolation position. LA.3 3.6.3-2 R1

c. Verifying that on a Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position. <See ITS 3.9.4>

SR 3.6.3.6 d. Cycling each weight or spring loaded check valve not testable during plant operation, through one complete cycle of full travel and verifying that each check valve remains closed when the differential pressure in the direction of flow is less than 1.2 psid and opens when the differential pressure in the direction of flow is greater than or equal to 1.2 psid but less than 5.0 psid. RAI 3.6.3-2 R1

SR 3.6.3.3 4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve not locked, sealed or otherwise secured in position shall be determined to be within its limit when tested pursuant to Specification 4.0.5. in accordance with the Inservice Testing Program L.13 RAI 3.6.3-21 R1 L.11 RAI 3.6.3-19 R1 A.7

power operated valves already in the isolated position are not required to be tested to automatically actuate because in case of a DBA, they are already in their required position. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

RAI 3.6.3-19 R1

L.12 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.2 states, "Each containment isolation valve shall be demonstrated OPERABLE…by: a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position. b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position." ITS SR 3.6.3.4 states, "Verify each automatic power operated containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal." This changes the CTS by not requiring valves locked, sealed or otherwise secured in position be tested to automatically actuate to their isolation position. Changes associated with moving details to the Bases are addressed by DOC LA.3. Changes associated with not requiring the Surveillance Requirement be conducted on valves locked, sealed, or otherwise secured in position are addressed by DOC L.11.

RAI 3.6.3-20 R1

The purpose of CTS 4.6.3.1.2.a and b is to verify that the required isolation valves automatically actuate properly in response to an actuation signal. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The valves do not perform differently when actuated by an "actual" or "simulated" signal and, therefore, the results of the testing are unaffected by the type of signal used to initiate the test. This change allows taking credit for unplanned actuations if sufficient information is collected to satisfy the surveillance test requirements. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

L.13 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.3.1.3 states, "The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested…" ITS SR 3.6.3.3 states, "Verify the isolation time of each automatic power operated containment isolation valve is within limits." This changes the CTS by deleting the reference to power operated containment isolation valves that may not be automatic.

RAI 3.6.3-21 R1

The purpose of CTS 4.6.3.1.3 is to provide assurance that valve actuate within the times assumed in the DBA analyses. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Remote manual power operated valves do not have an isolation time assumed in the DBA analyses since they require operator action. Deleting reference to power isolation valve time testing reduces the potential for

misinterpreting the requirements of the Surveillance Requirement while maintaining the assumptions of the accident analysis. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS. RAI 3.6.3-21 R1

L.14 *(Category 1 – Relaxation of LCO Requirements)* CTS 1.6 states, "CONTAINMENT INTEGRITY shall exist when:…1.6.5 The sealing mechanism associated with each penetration (e.g. welds, bellows or O-rings) is OPERABLE." 3.6.3 states, "Each containment isolation valve shall be OPERABLE." This changes the CTS by not including an explicit reference to the sealing mechanisms associated with each penetration being OPERABLE. RAI 3.6.1-3 R1

The purpose of CTS 1.6.5 is to help provide assurance that the penetration isolation devices can perform their safety function. This change is acceptable because the LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. The Containment Leakage Rate Testing Program requires testing be performed in accordance with 10 CFR 50 Appendix J, Part B, and each containment isolation valve and containment air lock is required to be OPERABLE, but there is no specific mention of the sealing mechanisms. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

3.6.5 Containment Temperature

38. (3.6.5-1)	DOC LA.1 CTS 4.6.1.5.1 ITS B3.6.5 Bases - SR 3.6.5.1

NRC RAI: CTS 4.6.1.5.1 includes specific locations where containment temperatures are to be measured and describes how the temperature used for the LCO is calculated. The CTS is modified by DOC LA.1 to relocate this information to the UFSAR. This is not entirely correct. Part of this information has been relocated to ITS B3.6.5 Bases - SR 3.6.5.1. The part that has been relocated deals with how the containment temperature is calculated - "weighted average of at least the minimum number of temperatures."
Comment: Revise DOC LA.1 to reflect that how the temperature is calculated is also relocated to the Bases.

Response: The Company will take the action proposed in the Comment. The CTS markup and DOC LA.1 are modified, and DOC LA.2 is added, to address movement of the requirement to determine containment temperature based on a weighted average of at least the minimum number of temperatures to the Bases.

(A.1)

ITS 3.6.5

12-14-88

ITS

CONTAINMENT SYSTEMS

AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.5 3.6.1.5 Primary containment average air temperature shall be maintained $\geq$ 86°F and $\leq$ 120°F.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A.1
Action B.1
Action B.2

With the containment average air temperature > 120°F or < 86°F, restore the average air temperature to within the limit within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

within limits

SR 3.6.5.1 ~~4.6.1.5.1~~ The primary containment average air temperature shall be the weighted average of ~~at least the minimum number of temperatures~~ ~~at the~~ following locations and shall be determined at least once per 24 hours: (LA.2) RAI 3.6.5-1 R1

(LA.1)

Location				Weight Factor(WF)	Min. No. of Temperature
a.	Containment dome	Elev. ~	390	0.09604	1
b.	Inside crane wall	Elev. ~	329	0.04846	2
c.	Annulus	Elev. ~	329	0.02256	2
d.	Annulus	Elev. ~	238	0.04972	1
e.	Cubicles	Elev. ~	268	0.06785 (.07513)*	2

4.6.1.5.2 The average containment air temperature shall be determined by the following relationship:

$$T_{containment} = \frac{1.0}{\left[\sum_{i=1}^{n} \frac{W_{Fi}}{T_i} \right]} \text{ where}$$

WF_i is the weight factor for the temperature T_i, of the i^{th} temperature measurement.

*Weight factor to be used for pressurizer cubicle at Elev. 268.

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(A.1)

ITS 3.6.5

CONTAINMENT SYSTEMS

ITS

AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.5 3.6.1.5 Primary containment average air temperature shall be maintained greater than or equal to 86°F and less than or equal to 120°F.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A.1 Action B.1 Action B.2 With the containment average air temperature greater than 120°F or less than 86°F, restore the average air temperature to within the limit within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

within limits

SR 3.6.5.1 4.6.~~1~~.5.1 The primary containment average air temperature shall be ~~the~~ weighted average of at least the minimum number of temperatures at the following locations and shall be determined at least once per 24 hours: LA.2 RAI 3.6.5-1 A1

LA.1

Location			Weight Factor(WF)	Min. No. of Temperature Detectors
a.	Containment dome	Elev. ~ 390	0.04789	1
b.	Inside crane wall	Elev. ~ 329	0.09373	2
c.	Annulus	Elev. ~ 329	0.02283 (0.02935)*	2
d.	Annulus	Elev. ~ 238	0.08309	1
e.	Cubicles	Elev. ~ 268	**	1

4.6.1.5.2 The average containment air temperature shall be determined by the following relationship:

$$T_{containment} = \frac{1.0}{\sum_{i=1}^{n} \frac{WF_i}{T_i}} \quad \text{where}$$

WF_i is the weight factor for the temperature T_i, of the i^{th} temperature measurement.

* Weight factor to be used for pressurizer cubicle at Elev. 268.

**Weight factor to be used for cubicles A=0.03932, B=0.03597., C=0.03619

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ADMINISTRATIVE CHANGES

A.1 In the conversion of the North Anna Current Technical Specifications (CTS) to the plant specific Improved Technical Specifications (ITS), certain changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to obtain consistency with NUREG-1431, Rev. 1, "Standard Technical Specifications-Westinghouse Plants" (ISTS).

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

None

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

LA.1 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.6.1.5.1 includes specific locations where containment temperatures are to be measured. ITS SR 3.6.5.1 does not include these details. This changes the CTS by moving the description of how compliance with the Technical Specification LCO is determined to the UFSAR. RAI 3.6.5-1 R1

The removal of these details for performing surveillance requirements from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to maintain temperature within the specified range and the same surveillance Frequency. Also, this change is acceptable because these types of procedural details will be adequately controlled in the UFSAR. The UFSAR is controlled under 10 CFR 50.59 which ensures changes are properly evaluated. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications.

LA.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.6.5.1 states, "The primary containment average air temperature shall be the weighted average of at least the minimum number of temperatures..." ITS SR 3.6.5.1 states, "Verify containment average air temperature is within limits." This changes the CTS by moving the requirement to take a RAI 3.6.5-1 R1

weighted average of temperatures to perform the Surveillance Requirement to the Bases. RAI 3.6.5-1

The removal of these details for performing surveillance from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to verify containment average air temperature is within limits. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. Changes to the Bases are controlled by the Technical Specification Bases Control Program in Chapter 5. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because procedural details for meeting Technical Specification requirements are being removed from the Technical Specifications. R1

LESS RESTRICTIVE CHANGES

None

3.6.7 Recirculation Spray (RS) System

39. (3.6.7-1)

DOC A.4
CTS 3.0.1
CTS 3.0.3
CTS 3.6.2.2 ACTIONS

NRC RAI: CTS 3.6.2.2 does not contain an ACTION for various RS system inoperabilities. DOC A.4 stated that for these conditions "CTS 3.0.1 would be entered." This is an incorrect citation since the balance of DOC A.4 discusses entry in CTS 3.0.3/ITS LCO 3.0.3 for these conditions.

Response: The Company will take the action proposed in the Comment. The reference in DOC A.4 is modified to refer to CTS LCO 3.0.3.

ADMINISTRATIVE CHANGES

A.1 In the conversion of the North Anna Current Technical Specifications (CTS) to the plant specific Improved Technical Specifications (ITS), certain changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to obtain consistency with NUREG-1431, Rev. 1, "Standard Technical Specifications-Westinghouse Plants" (ISTS).

These changes are designated as administrative changes because they do not result in technical changes to the CTS.

A.2 CTS 3.6.2.2 states two trains of containment recirculation spray shall be OPERABLE. ITS 3.6.7 states four Recirculation Spray (RS) subsystems shall be OPERABLE. This changes the CTS by specifying that the four subsystems that make up the two RS trains be OPERABLE.

The purpose of CTS 3.6.2.2 is to have the required equipment available for two RS trains to be OPERABLE. This change is acceptable because a train of RS is made up of two subsystems, so requiring the four RS subsystems to be OPERABLE is equal to requiring two RS trains to be OPERABLE. This change is designated as administrative because it does not result in technical changes to the CTS.

A.3 CTS LCO 3.6.2.2.b states the casing cooling tank solution requirements that must be met for the casing cooling tank to be OPERABLE. ITS LCO 3.6.7 requires the casing cooling tank to be OPERABLE, but the specific solution requirements are moved to the Surveillance Requirements (SRs). This changes the CTS by moving specific parameter requirements that must be met for OPERABILITY from the LCO to the SRs.

The purpose of CTS 3.6.2.2.b is to have the casing cooling tank OPERABLE with the solution parameters within the required limits. This change is acceptable because ITS SR 3.0.1 states that failure to meet a SR is failure to meet the LCO. The movement of this information from the LCO to the SR results in no change to the OPERABILITY requirements. This change is designated as administrative because it does not result in technical changes to the CTS.

A.4 CTS 3.6.2.2 does not contain an ACTION for one inside RS subsystem and one outside RS subsystem inoperable not in the same train, or for two outside RS subsystems inoperable, or for three or more RS subsystems inoperable. In these conditions CTS 3.0.3 would be entered. ITS 3.6.7 CONDITION G includes a REQUIRED ACTION to enter ITS 3.0.3 for these conditions. RAI 3.6.7-1 R1

CTS 3.6.2.2 implicitly requires entry into CTS 3.0.3 for one inside RS subsystem and one outside RS subsystem inoperable not in the same train, or for two outside RS subsystems inoperable, or for three or more RS subsystems inoperable, by omitting

3.6.7 Recirculation Spray (RS) System

40. DOC L.2
(3.6.7-2) CTS 3.6.2.2 ACTION b
CTS 3.6.2.2 ACTION c
ITS 3.6.7 Required Action E.2
ITS 3.6.7 Action F

NRC RAI: CTS 3.6.2.2 ACTIONS b and c have been modified in the CTS markup to allow a Completion Time of 84 hours to reach MODE 5 from MODE 3. This change is discussed in DOC L.2. DOC L.2 does not provide a discussion and justification for this change as it applies to CTS 3.6.2.2 ACTION c. In addition, DOC L.2 states that the corresponding ITS Required Action is ITS 3.6.7 Required Action F.2. ITS 3.6.7 ACTION F does not contain a Required Action F.2. Also refer to Comment Number 3.6.7-3 for concern on wording of Insert 2, which makes this change. **Comment:** Revise DOC L.2 to correct the Required Action discrepancy and provide a discussion and justification for this change to CTS 3.6.2.2 ACTION c.

Response: The Company will take the action proposed in the Comment. DOC L.2 is modified to address the change as it applies to CTS 3.6.2.2 ACTION c, and the reference in DOC L.2 to Required Action F.2 is changed to E.2. The ISTS markup is modified to change Required Actions F.1 and F.2 to E.1 and E.2

F. One outside RS subsystem and one inside RS subsystem inoperable and not in the same train.
OR

CTS

ACTIONS (continued)

	CONDITION	REQUIRED ACTION		COMPLETION TIME	
Action a Action b Action c new	~~F~~ E. Required Action and associated Completion Time not met.	~~F~~ E.1 AND ~~F~~ E.2	Be in MODE 3. Be in MODE 5.	6 hours 84 hours	⑤ RAI 3.6.7-2 R1
new	~~G~~ F. Three or more RS subsystems inoperable. OR Two outside RS subsystems inoperable.	~~G~~ F.1	Enter LCO 3.0.3.	Immediately	⑤ ⑤

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE		FREQUENCY	
4.6.2.2.2.b 3.6.2.2.b.3	SR 3.6.~~6E~~ 7.1	Verify casing cooling tank temperature is ≥ ~~[~~35~~]~~°F and ≤ ~~[~~50~~]~~°F.	24 hours	① ③
4.6.2.2.2.a.1 3.6.2.2.b.1	SR 3.6.~~6E~~ 7.2	Verify casing cooling tank contained borated water volume is ≥ ~~[~~116,500~~]~~ gal.	7 days	① ③
4.6.2.2.2.a.2 3.6.2.2.b.2	SR 3.6.~~6E~~ 7.3	Verify casing cooling tank boron concentration is ≥ ~~[~~2300~~]~~ ppm and ≤ ~~[~~2400~~]~~ ppm.	7 days	① ③
4.6.2.2.1.a	SR 3.6.~~6E~~ 7.4	Verify each RS ~~[and casing cooling]~~ manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	31 days	① ③

(continued)

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period. The 72 hour COMPLETION TIME is considered appropriate given that 100% of the heat removal capacity and 360° containment spray coverage remains with both inside spray systems inoperable. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.2 *(Category 3 – Relaxation of Completion Time)* CTS 3.6.2.2, ACTION b states that with two RS subsystems inoperable in one RS train, one inoperable subsystem must be restored to OPERABLE status within 72 hours, or the unit be placed in HOT STANDBY within the next 6 hours, and COLD SHUTDOWN within the next 30 hours. CTS 3.6.2.2, ACTION c states that with the casing cooling tank inoperable, the tank must be restored to OPERABLE status within 72 hours, or the unit be placed in HOT STANDBY within the next 6 hours, and COLD SHUTDOWN within the next 30 hours. ITS 3.6.7 REQUIRED ACTION E.2 states that 84 hours is allowed to place the unit in MODE 5. This changes CTS by allowing 48 more hours to place the unit in MODE 5 when the Required Actions and associated Completion Times are not met.

RAI 3.6.7-2 R1
RAI 3.6.7-3 R1

The purpose of CTS 3.6.2.2 ACTION b, CTS 3.6.2.2 ACTION c, and ITS 3.6.7 REQUIRED ACTION E.2 is to allow time to place the unit in a safe condition expeditiously without excessive stress on unit components. This change is acceptable because the Completion Time is consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the allowed Completion Time. Two of the four RS subsystems remain OPERABLE and capable of providing all of the cooling capacity and 360° containment spray as assumed in the safety analysis, even with the reduced driving force in the RCS associated with MODE 3. This change is designated as less restrictive because additional time is allowed to place the unit in MODE 5 than was allowed in the CTS.

RAI 3.6.7-2 R1
RAI 3.6.7-3 R1

L.3 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.2.2.1.c.1 and 4.6.2.2.1.c.2 require verification of the automatic actuation of RS components on a containment high-high pressure signal. ITS SR 3.6.7.6 states that automatic actuation of RS components may be performed with an actual or simulated actuation signal. This changes the CTS by explicitly allowing the use of either an actual or simulated signal for the test. The change from "containment high-high signal" to "actuation signal" is discussed in LA.4.

The purpose of CTS 4.6.2.2.1.c.1 and 4.6.2.2.1.c.2 is to verify that the specified RS components automatically actuate properly in response to an actuation signal. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The equipment does not

3.6.7 Recirculation Spray (RS) System

41. DOC L.2
(3.6.7-3) CTS 3.6.2.2 ACTION a
CTS 3.6.2.2 ACTION b
CTS 3.6.2.2 ACTION c
ITS 3.6.7 Required Action E.2 and Associated Bases

NRC RAI: CTS 3.6.2.2 ACTION a requires that after HOT STANDBY (MODE 3) is reached, the action is to "restore the inoperable subsystem to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the next 30 hours." CTS 3.6.2.2 ACTIONS b and c have been modified in the CTS markup by a similar statement. This modification is Insert 2 and justified by DOC L.2. The corresponding ITS ACTION is ITS 3.6.7 Required Action E.2, which requires the plant to be in MODE 5 within 84 hours. Even though the overall time to complete the CTS and ITS ACTIONS of 84 hours does not change (CTS 6to MODE 3 +48 + 30 = 84 hours), there is a change in converting the CTS to the ITS. This change relates to when the commencement of shutting down to MODE 5 begins or is declared. In the CTS it officially starts immediately after the 48-hour allowed outage time to restore the subsystem to OPERABLE status is completed. In the ITS it beings immediately after MODE 3 is reached. This change is not indicated or justified in the CTS markup for CTS 3.6.2.2 ACTION a, and Insert 2 is incorrect for CTS 3.6.2.2 ACTIONS b and c. The change associated with CTS 3.6.2.2 ACTION a is a More Restrictive change (Time for commencement of shutdown to MODE 5 declared earlier in ITS versus CTS). The change associated with CTS 3.6.2.2 ACTIONS b and c is still Less (L) Restrictive, but Insert 2 should be deleted, and the 30 hours changed to 84 hours, with the appropriate justification. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for these More Restrictive and Less Restrictive (L) changes.

Response: The Company will take the action proposed in the Comment, with certain modifications. ITS 3.6.7 CTS Insert 2 is deleted, the CTS markup is modified, DOC L.2 is modified, and DOC M.1 is added to explain the change to the CTS. The time for declaring commencement of Action to place the unit in MODE 5 is changed from up to 54 hours after entering ACTIONS b and c to immediately.

A.1

ITS 3.6.7
9-2-93

CONTAINMENT SYSTEMS

CONTAINMENT RECIRCULATION SPRAY SYSTEM

ITS

LIMITING CONDITION FOR OPERATION

Four subsystems

A.2

LCO 3.6.7

3.6.2.2 ~~Two trains~~ of containment recirculation spray shall be OPERABLE. ~~Each train shall consist of:~~

~~a. 1. One inside containment recirculation spray subsystem composed of an inside containment recirculation spray pump, associated heat exchanger and flow path, and~~

~~2. One outside containment recirculation spray subsystem composed of an outside containment recirculation spray pump, associated heat exchanger and flow path, and a casing cooling pump and a flow path capable of transferring fluid from the casing cooling tank to the suction of the outside recirculation spray pump.~~

LA.1

b. One casing cooling tank ~~(shared with both trains)~~ shall be OPERABLE ~~with:~~ LA.2

Verify

SR 3.6.7.2 1. Contained borated water volume of at least 116,500 gallons.

SR 3.6.7.3 2. Between 2300 and 2400 ppm boron concentration.

SR 3.6.7.1 3. A solution temperature ≥ 35°F and ≤ 50° F.

A.3

Applicability

APPLICABILITY: Modes 1, 2, 3 and 4

ACTION:

Action A
Action E

a. With one containment recirculation spray subsystem inoperable in one containment recirculation spray train, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; ~~restore the inoperable subsystem to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within ~~the next 30~~ 84 hours.

M.1 RAI 3.6.7-3 R1

Actions B,C
Action E

b. With two containment recirculation spray subsystems inoperable in one containment recirculation spray train, restore one inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 84 hours.

Insert

L.1

Action D
Action E

c. With the casing cooling tank inoperable, restore the tank to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 84 hours.

L.2 RAI 3.6.7-3 R1

Insert proposed Action F

A.4

Four subsystems

CONTAINMENT SYSTEMS

CONTAINMENT RECIRCULATION SPRAY SYSTEM

ITS

LIMITING CONDITION FOR OPERATION

3.6.2.2 ~~Two trains~~ of containment recirculation spray shall be OPERABLE. ~~Each train shall consist of:~~ A.2

3.6.7

a. 1. ~~One inside containment recirculation spray subsystem composed of an inside containment recirculation spray pump, associated heat exchanger and flow path, and~~ LA.1

2. ~~One outside containment recirculation spray subsystem composed of an outside containment recirculation spray pump, associated heat exchanger and flow path, and a casing cooling pump and a flow path capable of transferring fluid from the casing cooling tank to the suction of the outside recirculation spray pump.~~

b. One casing cooling tank ~~(shared with both trains)~~ shall be OPERABLE ~~with:~~ LA.2

SR 3.6.7.2 verify 1. Contained borated water volume of at least 116,500 gallons.

SR 3.6.7.3 2. Between 2300 and 2400 ppm boron concentration. A.3

SR 3.6.7.1 3. A solution temperature ≥ 35°F and ≤ 50° F.

APPLICABILITY: Modes 1, 2, 3 and 4

ACTION:

Action A, Action E a. With one containment recirculation spray subsystem inoperable in one containment recirculation spray train, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; ~~restore the inoperable subsystem to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within ~~the next 30~~ 84 hours. M.1 RAI 3.6.7-3 R1

Actions B,C, Action E b. With two containment recirculation spray subsystems inoperable in one containment recirculation spray train, restore one inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 84 hours. Insert L.1

Action D, Action E c. With the casing cooling tank inoperable, restore the tank to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within ~~the following 30~~ 84 hours. L.2 RAI 3.6.7-3 R1

Action F Add proposed Action F A.4

SURVEILLANCE REQUIREMENTS

4.6.2.2.1 Each containment recirculation spray subsystem and casing cooling subsystem shall be demonstrated OPERABLE:

SR 3.6.7.4 a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.

ACTIONS for these conditions. This change is acceptable because it provides explicit direction to enter LCO 3.0.3 instead of relying on the Section 3.0 usage rules to imply LCO 3.0.3 entry. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.6.2.2 Action a requires that if one containment recirculation spray subsystem is inoperable in one containment recirculation spray train, that the inoperable subsystem be restored to OPERABLE status within 7 days. If this is not accomplished, the unit is to be placed in at least HOT STANDBY within the next 6 hours. The inoperable subsystem is then to be restored to OPERABLE status within the next 48 hours, or be in COLD SHUTDOWN within the next 30 hours. ITS Required Action E.2 requires that if the Required Action and associated Completion Time is not met, that the unit be placed in MODE 5 within 84 hours. This changes CTS by declaring the time for commencement of shutdown to MODE 5 earlier in the sequence of Required Actions. RAI 3.6.7-3 R1

This change is acceptable because the change clarifies the amount of time available to place the unit in MODE 5 when the Required Action and associated Completion Time is not met. The 48 hours during which there is no explicit declaration of intent to place the unit in MODE 5 is unnecessary. This change is designated more restrictive because it requires the intent be stated to place the unit in MODE 5 earlier in the Required Action process.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 3.6.2.2 states that two trains of containment RS shall be OPERABLE and contains a description of subsystems that each train consists of. ITS 3.6.7 states that four RS subsystems shall be OPERABLE, but the details of what constitutes an OPERABLE subsystem are moved to the Bases. This changes the CTS by moving the details of what constitutes a subsystem to the Bases.

The removal of these details, which are related to system design, from the Technical Specifications is acceptable because this type of information is not necessary to be included in the Technical Specifications to provide adequate protection of public health and safety. The ITS still retains the requirement to have four RS subsystems OPERABLE. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases. This change is designated as a less restrictive

period. The 72 hour COMPLETION TIME is considered appropriate given that 100% of the heat removal capacity and 360° containment spray coverage remains with both inside spray systems inoperable. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

L.2 *(Category 3 – Relaxation of Completion Time)* CTS 3.6.2.2, ACTION b states that with two RS subsystems inoperable in one RS train, one inoperable subsystem must be restored to OPERABLE status within 72 hours, or the unit be placed in HOT STANDBY within the next 6 hours, and COLD SHUTDOWN within the next 30 hours. CTS 3.6.2.2, ACTION c states that with the casing cooling tank inoperable, the tank must be restored to OPERABLE status within 72 hours, or the unit be placed in HOT STANDBY within the next 6 hours, and COLD SHUTDOWN within the next 30 hours. ITS 3.6.7 REQUIRED ACTION E.2 states that 84 hours is allowed to place the unit in MODE 5. This changes CTS by allowing 48 more hours to place the unit in MODE 5 when the Required Actions and associated Completion Times are not met. RAI 3.6.7-2 R1 RAI 3.6.7-3 R1

The purpose of CTS 3.6.2.2 ACTION b, CTS 3.6.2.2 ACTION c, and ITS 3.6.7 REQUIRED ACTION E.2 is to allow time to place the unit in a safe condition expeditiously without excessive stress on unit components. This change is acceptable because the Completion Time is consistent with safe operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repairs or replacement of required features, and the low probability of a DBA occurring during the allowed Completion Time. Two of the four RS subsystems remain OPERABLE and capable of providing all of the cooling capacity and 360° containment spray as assumed in the safety analysis, even with the reduced driving force in the RCS associated with MODE 3. This change is designated as less restrictive because additional time is allowed to place the unit in MODE 5 than was allowed in the CTS. RAI 3.6.7-2 R1 RAI 3.6.7-3 R1

L.3 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.6.2.2.1.c.1 and 4.6.2.2.1.c.2 require verification of the automatic actuation of RS components on a containment high-high pressure signal. ITS SR 3.6.7.6 states that automatic actuation of RS components may be performed with an actual or simulated actuation signal. This changes the CTS by explicitly allowing the use of either an actual or simulated signal for the test. The change from "containment high-high signal" to "actuation signal" is discussed in LA.4.

The purpose of CTS 4.6.2.2.1.c.1 and 4.6.2.2.1.c.2 is to verify that the specified RS components automatically actuate properly in response to an actuation signal. This change is acceptable because it has been determined that the relaxed Surveillance Requirement acceptance criteria are not necessary for verification that the equipment used to meet the LCO can perform its required functions. The equipment does not

3.6.7 Recirculation Spray (RS) System

42. Bases JFD 6
(3.6.7-4) STS B3.6.6E Bases - E.1
ITS B3.6.7 Bases - D.1

NRC RAI: The last sentence in STS B3.6.6E Bases - E.1 states the following: "The 72 hour Completion Time was chosen based on the same reasons as given in Required Action B.1." The ITS markup of ITS B3.6.7 Bases - D.1 deletes this sentence and replaces it with sentences on casing cooling tank and RS pump OPERABILITY. These new sentences do not provide a justification for the 72-hour Completion Time as does the STS statement. **Comment:** Revise the ITS markup to either retain the STS wording or provide plant-specific wording justifying the 72-hour Completion Time for ITS 3.6.7 Required Action D.1 and provide the appropriate discussions and justifications as necessary.

Response: The Company will take the action proposed in the Comment. The STS wording is retained.

BASES

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause an increase in containment pressure and temperature requiring the operation of the RS System.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the RS System is not required to be OPERABLE in MODE 5 or 6.

ACTIONS

A.1

With one of the RS subsystems inoperable, the inoperable subsystem must be restored to OPERABLE status within 7 days. The components in this degraded condition are capable of providing at least 100% of the heat removal needs (i.e., approximately 150% when one RS subsystem is inoperable) after an accident. The 7 day Completion Time was developed taking into account the redundant heat removal capabilities afforded by combinations of the RS and QS systems and the low probability of a DBA occurring during this period.

B.1 and C.1

With two of the required RS subsystems inoperable either in the same train, or both inside RS subsystems, at least one of the inoperable RS subsystems must be restored to OPERABLE status within 72 hours. The components in this degraded condition are capable of providing 100% of the heat removal needs and 360° containment spray coverage after an accident. The 72 hour Completion Time was developed taking into account the redundant heat removal capability afforded by the OPERABLE subsystems, a reasonable amount of time for repairs, and the low probability of a DBA occurring during this period.

D.1

With the casing cooling tank inoperable, the NPSH available to both outside RS subsystem pumps may not be sufficient. The inoperable casing cooling tank must be restored to OPERABLE status within 72 hours. The components in this degraded condition are capable of providing 100% of the heat removal needs after an accident. The 72 hour Completion Time was chosen based on the same reasons as given in Required Action B.1.

RAI 3.6.7-4 R1

1

BASES

ACTIONS

~~D.1 (continued)~~

~~chosen based on the same reasons as given in Required Action B.1.~~ 6

D ~~E~~.1 2 6

With both the casing cooling tank inoperable. the NPSH available to ~~the~~ outside RS subsystem pumps may not be sufficient. The inoperable casing cooling tank must be restored to OPERABLE status within 72 hours. The components in this degraded condition are capable of providing 100% of the heat removal needs after an accident. The 72 hour Completion Time was chosen based on the same reasons as given in Required Action B.1. 2

RAI 3.6.7-4 R1

E ~~F~~.1 and E ~~F~~.2

If the inoperable RS subsystem(s) or the casing cooling tank cannot be restored to OPERABLE status within the required Completion Time, the ~~plant~~ unit must be brought to a MODE in which the LCO does not apply. To achieve this status. the ~~plant~~ unit must be brought to at least MODE 3 within 6 hours and to MODE 5 within 84 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging ~~plant~~ unit systems. The extended interval to reach MODE 5 allows additional time and is reasonable considering that the driving force for a release of radioactive material from the Reactor Coolant System is reduced in MODE 3. 3

F ~~G~~.1

With three or more RS subsystems inoperable. the unit is in a condition outside the accident analysis. With an inoperable inside RS subsystem in one train, and an inoperable outside RS subsystem in the other train, only 180° containment spray coverage is available. This condition is outside accident analysis. With two inoperable outside RS subsystems, less than 100% of required RS flow is available. Therefore, in all three cases, LCO 3.0.3 must be entered immediately. 6

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3.6.8 Chemical Addition System

43. Bases JFD 3
(3.6.8-1) STS B3.6.7 Bases - A.1
ITS B3.6.8 Bases - A.1

NRC RAI: The second sentence in STS B3.6.7 Bases - A.1 states that "The pH adjustment of the Containment Spray System flow for corrosion protection and iodine removal enhancement is reduced in this condition." The ITS modifies this statement in ITS B3.6.8 Bases - A.1 by replacing "Containment" with "Quench" and deleting "corrosion protection and." The deletion is justified by Bases JFD 3. Bases JFD 3 deals with relocating CTS requirements/information to the ITS. The staff believes that the justification is incorrect for this ITS change. In addition, the staff cannot find in the CTS markup any reference with regards to corrosion protection. **Comment:** Provide an appropriate discussion and justification for this deletion.

Response: The Company will take the action proposed in the Comment. The ISTS markup is modified, and JFD 8 is added to provide the justification for deleting the reference to corrosion protection being one of the functions of the pH control. At NAPS, the corrosion protection feature of the Chemical Addition System has no bearing on the dose consequences of the DBA analysis. The design of the system does consider the effect of environmental pH, but establishment of an acceptable operational environment for equipment is not part of the DBA analysis used as the basis for this LCO.

BASES

ACTIONS

A.1 (continued) ②

Quench

the ~~Containment~~ Spray System flow for ~~corrosion protection and~~ iodine removal enhancement is reduced in this condition. ⑧ RAI 3.6.8-1 R1
The ~~Containment~~ Spray System would still be available and would remove some iodine from the containment atmosphere in the event of a DBA. The 72 hour Completion Time takes into account the

ability of the Quench Spray System to remove iodine at a reduced capability using the

redundant flow path capabilities and the low probability of the worst case DBA occurring during this period. ②

Quench Spray

Chemical Addition ①

B.1 and B.2

If the ~~Spray Additive~~ System cannot be restored to OPERABLE status within the required Completion Time, the ~~plant~~ unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the ~~plant~~ must be brought to at least MODE 3 within 6 hours and to MODE 5 within 84 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging ~~plant~~ unit systems. The extended interval to reach MODE 5 allows 48 hours for restoration of the ~~Spray Additive~~ Chemical Addition System in MODE 3 and 36 hours to reach MODE 5. This is reasonable when considering the reduced pressure and temperature conditions in MODE 3 for the release of radioactive material from the Reactor Coolant System. ② ①

SURVEILLANCE REQUIREMENTS

SR 3.6.~~7~~ 8.1

Chemical Addition ①

Verifying the correct alignment of ~~Spray Additive~~ System manual, power operated, and automatic valves in the ~~spray additive~~ chemical addition flow path provides assurance that the system is able to provide additive to the ~~Containment~~ Quench Spray System in the event of a DBA. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those valves outside containment and capable of potentially being mispositioned are in the correct position. ① ②

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JUSTIFICATION FOR DEVIATIONS
ITS 3.6.8 BASES, CHEMICAL ADDITION SYSTEM

1. North Anna Units 1 and 2 utilize subatmospheric containments. Therefore, the NUREG-1431 specifications applicable to that containment design were used in developing the plant-specific Improved Technical Specifications (ITS). Necessary editorial changes to the NUREG-1431 pages, including renumbering of specifications, were made. North Anna also utilizes a Chemical Addition System which is referred to as a Spray Additive System in NUREG-1431. The Chemical Addition System includes a chemical addition tank instead of a spray additive tank. The names have been corrected in the ITS.

2. Changes are made (additions, deletions, and/or changes) to the ISTS which reflect the plant specific nomenclature, number, reference, system description, analysis, or licensing basis description.

3. Information is moved from the current Technical Specifications to the Bases.

4. Editorial change made for enhanced clarity or to be consistent with the ISTS Writers Guide.

5. 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.

6. The brackets have been removed and the proper plant specific information/value has been provided.

7. Not Used. R1 RAI 3.6.8-2

8. A reference in the Required Action A.1 Bases to the Chemical Addition System pH adjustment allowing Quench Spray to provide corrosion protection is not adopted. At NAPS, the DBA analysis does not assume any corrosion protection from the pH adjustment, only iodine removal. R1 RAI 3.6.8-1

3.6.8 Chemical Addition System

44. Bases JFD 7
(3.6.8-2)

NRC RAI: The section on Justifications For Deviations for ITS 3.6.8 Bases, Chemical Addition Systems, contains a Bases JFD 7, which discusses RS System response times. The staff cannot find a Bases JFD 7 in the ITS markup of ITS B3.6.8 Bases.

Response: The Company will take the action proposed in the Comment. JFD-7 is deleted.

1. North Anna Units 1 and 2 utilize subatmospheric containments. Therefore, the NUREG-1431 specifications applicable to that containment design were used in developing the plant-specific Improved Technical Specifications (ITS). Necessary editorial changes to the NUREG-1431 pages, including renumbering of specifications, were made. North Anna also utilizes a Chemical Addition System which is referred to as a Spray Additive System in NUREG-1431. The Chemical Addition System includes a chemical addition tank instead of a spray additive tank. The names have been corrected in the ITS.

2. Changes are made (additions, deletions, and/or changes) to the ISTS which reflect the plant specific nomenclature, number, reference, system description, analysis, or licensing basis description.

3. Information is moved from the current Technical Specifications to the Bases.

4. Editorial change made for enhanced clarity or to be consistent with the ISTS Writers Guide.

5. 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.

6. The brackets have been removed and the proper plant specific information/value has been provided.

7. Not Used. R1 RAI 3.6.8-2

8. A reference in the Required Action A.1 Bases to the Chemical Addition System pH adjustment allowing Quench Spray to provide corrosion protection is not adopted. At NAPS, the DBA analysis does not assume any corrosion protection from the pH adjustment, only iodine removal. R1 RAI 3.6.8-1

3.6.8 Chemical Addition System

45. CTS 3.6.2.3 ACTION
(3.6.8-3) ITS 3.6.8 Required Action B.2 and Associated Bases

NRC RAI: CTS 3.6.2.3 ACTION requires that after HOT STANDBY (MODE 3) is reached, the action is to "restore the spray addition system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the next 30 hours." The corresponding ITS ACTION is ITS 3.6.8 Required Action B.2, which requires the plant to be in MODE 5 within 84 hours. Even though the overall time to complete the CTS and ITS ACTIONS of 84 hours does not change (CTS 6 to MODE 3 + 48 + 30 = 84 hours), there is a change in converting the CTS to the ITS. The change relates to when the commencement of shutting down to MODE 5 begins or is declared. In the CTS it officially starts immediately after the 48-hour allowed outage time to restore the system to OPERABLE status is completed. In the ITS it begins immediately after MODE 3 is reached. This change is not indicated or justified in the CTS markup for CTS 3.6.2.3 ACTION. The change associated with CTS 3.6.2.3 ACTION is a More Restrictive change (Time for commencement of shutdown to MODE 5 declared earlier in ITS versus CTS). **Comment:** Revise the CTS markup and provide a discussion and justification for this More Restrictive change.

Response: The Company will take the action proposed in the Comment, with certain modifications. DOC M.1 is added to explain the change to the CTS. The time for declaring commencement of Action to place the unit in MODE 5 is changed from up to 54 hours after entering the ACTION to immediately.

A.1 ITS 3.6.8

ITS

CONTAINMENT SYSTEMS

CHEMICAL ADDITION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.8

3.6.2.3 The chemical addition system shall be OPERABLE ~~with:~~

~~a. A chemical addition tank containing a volume of between 4800 and 5500 gallons of between 12 and 13 percent by weight NaOH solution, and~~

~~b. A chemical addition flow path capable of adding NaOH solution from the chemical addition tank to both containment quench spray system pumps via the RWST.~~

A.2

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A

Action B

With the chemical addition system inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours ~~; restore the spray addition system to OPERABLE status within the next 48 hours or~~ and be in COLD SHUTDOWN within ~~the following 30~~ 84 hours.

M.1 RAI 3.6.8-3 R1

SURVEILLANCE REQUIREMENTS

4.6.2.3 The chemical addition system shall be demonstrated OPERABLE:

SR 3.6.8.1

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.

b. At least once per 6 months by:

SR 3.6.8.2

1. Verifying the contained solution volume in the tank is ≥ 4800 gallons and ≤ 5500 gallons, and

A.2

SR 3.6.8.3

2. Verifying the concentration of the NaOH solution ~~by chemical analysis~~ is ≥ 12% and ≤ 13%.

LA.1

A.2

page 1 of 2

Rev. 1

A.1

CONTAINMENT SYSTEMS

CHEMICAL ADDITION SYSTEM

ITS

LIMITING CONDITION FOR OPERATION

3.6.8

3.6.2.3 The chemical addition system shall be OPERABLE ~~with:~~

~~a. A chemical addition tank containing a volume of between 4800 and 5500 gallons of between 12 and 13 percent by weight NaOH solution, and~~

~~b. A chemical addition flow path capable of adding NaOH solution from the chemical addition tank to both containment quench spray system pumps via the RWST.~~ A.2

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A
Action B

With the chemical addition system inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; ~~restore the chemical addition system to OPERABLE status within the next 48 hours or~~ be in COLD SHUTDOWN within ~~the following 30~~ 84 hours. M.1 RAI 3.6.8-3 R1

SURVEILLANCE REQUIREMENTS

4.6.2.3 The chemical addition system shall be demonstrated OPERABLE:

SR 3.6.8.1 a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.

b. At least once per 6 months by:

SR 3.6.8.2 1. Verifying the contained solution volume in the tank is ≥ 4800 gallons and ≤ 5500 gallons, and A.2

SR 3.6.8.3 2. Verifying the concentration of the NaOH solution ~~by chemical analysis~~ is ≥ 12% and ≤ 13%. LA.1 A.2

SR 3.6.8.4 c. At least once per 18 months, ~~during shutdown,~~ by verifying that each automatic valve in the flow path that is not locked, sealed, or otherwise secured in position actuates to its correct position on ~~a Containment Pressure -- high-high test~~ an actual or simulated actuation signal. LA.2 L.1 LA.3 L2

SR 3.6.8.5 d. At least once per 5 years by verifying individual flow from the RWST and the chemical addition tank ~~thru the drain lines in the cross connection between the respective tanks~~. LA.4

ADMINISTRATIVE CHANGES

A.1 In the conversion of the North Anna Current Technical Specifications (CTS) to the plant specific Improved Technical Specifications (ITS), certain changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to obtain consistency with NUREG-1431, Rev. 1, "Standard Technical Specifications-Westinghouse Plants" (ISTS).

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the CTS.

A.2 CTS LCO 3.6.2.3 contains a list of requirements that must be met for the Chemical Addition System to be OPERABLE. ITS LCO 3.6.8 still requires the Chemical Addition System to be OPERABLE, but the requirements for OPERABILITY are moved to Surveillances.

This change is acceptable because ITS SR 3.0.1 states that failure to meet a Surveillance is failure to meet the LCO. The movement of this information from the LCO to the Surveillances results in no change to the OPERABILITY requirements. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.6.2.3 Action requires that if the chemical addition system is inoperable, that the inoperable system be restored to OPERABLE status within 72 hours. If this is not accomplished, the unit is to be placed in at least HOT STANDBY within the next 6 hours. The inoperable system is then to be restored to OPERABLE status within the next 48 hours, or be in COLD SHUTDOWN within the following 30 hours. ITS Required Action B.2 requires that if the Required Action and associated Completion Time is not met, that the unit be placed in MODE 5 within 84 hours. This changes CTS by declaring the time for commencement of shutdown to MODE 5 earlier in the sequence of Required Actions.

R1
RAI
3.6.8-3

This change is acceptable because the change clarifies the amount of time available to place the unit in MODE 5 when the Required Action and associated Completion Time is not met. The 48 hours during which there is no explicit declaration of intent to place the unit in MODE 5 is unnecessary. This change is designated more restrictive because it requires the intent be stated to place the unit in MODE 5 earlier in the Required Action process.

RELOCATED SPECIFICATIONS

None

3.6.9 Hydrogen Recombiners

46.
(3.6.9-1)

DOC L.2
JFD 2
Bases JFD 2
Bases JFD 4
Bases JFD 9
CTS 3.6.4.2 ACTIONS
STS 3.6.8 ACTION B and Associated Bases
ITS 3.6.9 ACTION B and Associated Bases

NRC RAI: CTS 3.6.4.2 ACTION a only permits one hydrogen recombiner to be inoperable. If two hydrogen recombiners are inoperable, CTS 3.0.3 is entered. CTS 3.6.4.2 ACTION has been modified to incorporate STS 3.6.8 ACTION B, which allows two hydrogen recombiners to be inoperable for up to 7 days. The use of STS 3.6.8 ACTION B is allowed, as specified in a Bases Reviewer's note, provided that the alternate hydrogen control system is found to be acceptable to the staff. DOC L.2 and Bases JFD 9 do not contain any evidence that the staff has approved an alternate hydrogen control system(s). There is no other LCO-controlled hydrogen control system(s) in the ITS such as specified in the NUREGs. JFD Bases 9 refers to the containment purge blowers of the Atmosphere Cleanup System as the alternate hydrogen control system and there is, in ITS B3.6.4.2 Bases Applicable Safety Analyses and B.1 and B.2, a reference to the Containment Atmosphere Cleanup System purge blowers, which is not an LCO-controlled system. There is no discussion or justification to show that the Containment Atmosphere Cleanup System and its associated purge blowers has been approved by the staff as a alternate means of hydrogen control.
Comment: Provide additional discussion and justification to show that the staff has found this alternate hydrogen control system acceptable.

Response: ITS 3.6.9 DOC L.2 is modified to include additional justification for the alternate means of performing the hydrogen control function. The alternate means of performing the hydrogen control function is described in USNRC Safety Evaluation Report related to Amendment Nos. 192 and 173 for NAPS Units No. 1 and No. 2, Docket Nos. 50-338 and 50-339. The description explains that the alternate means of hydrogen control ensures that failure of both recombiner systems will not leave the containment without purge capability.

L.2 *(Category 3 – Relaxation of Completion Time)* CTS 3.6.4.2 states, "With one hydrogen recombiner system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours." ITS 3.6.9 Condition A requires one inoperable hydrogen recombiner be restored to OPERABLE status within 30 days. ITS 3.6.9 Condition B requires that with two hydrogen recombiners inoperable, "Verify by administrative means that the hydrogen control function is maintained," within one hour and once per 12 hours thereafter, and, "Restore one hydrogen recombiner to OPERABLE status," within 7 days. This changes the CTS by allowing both hydrogen recombiners to be inoperable for 7 days if the Required Actions are met, instead of entering CTS LCO 3.0.3.

The purpose of CTS 3.6.4.2 is to provide the capability for controlling bulk hydrogen concentration in containment to less than the lower flammable concentration following a Design Basis Accident. This change is acceptable because the Completion Time is consistent with safe operation under the specified Condition, considering the OPERABLE status of the redundant systems or features. This includes the capacity and capability of remaining systems or features, a reasonable time for repairs or replacement, and the low probability of a DBA occurring during the allowed Completion Time. The change allows 7 days to restore at least one inoperable hydrogen recombiner to OPERABLE status when both hydrogen recombiners are inoperable, instead of entering LCO 3.0.3. The criteria for allowing this additional restoration time verifies that an alternate means of performing the hydrogen control function is available. The alternate means of performing the hydrogen control function is described in USNRC Safety Evaluation Report related to Amendment Nos. 192 and 173 for NAPS Units No. 1 and No. 2, Docket Nos. 50-338 and 50-339. The description explains that the alternate means of hydrogen control ensures that failure of both recombiner systems will not leave the containment without purge capability. Seven days is a reasonable time to allow two hydrogen recombiners to be inoperable because the hydrogen control function is maintained and because of the low probability of a LOCA that would generate hydrogen in the amounts capable of exceeding the flammability limit. This change is designated as less restrictive because additional time is allowed to restore parameters to within the LCO limits than was allowed in the CTS.

R1
RAI
3.6.9-1

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

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 R1

REFERENCES

1. 10 CFR 50, Appendix J, Option B.

2. UFSAR, Section 6.2.

3. UFSAR, Chapter 15.

INSERT

unit

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 {BWR 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. (1) (9) R1 RAI 3.6.2-9

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.
