NORTH ANNA POWER STATION

Section 3.7
Plant Systems – Book 2

VOLUME 16
Improved Technical Specifications

Dominion

SECTION 3.7 - PLANT SYSTEMS

CURRENT TECHNICAL SPECIFICATIONS

MARKUP AND DISCUSSION OF CHANGES

UNIT 1

3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE

SAFETY VALVES

Insert proposed Actions Note (L.1)

ITS 3.7.1

LIMITING CONDITION FOR OPERATION

3.7.1.1 ~~All~~ Five main steam line code safety valves associated with each steam generator ~~of an unisolated reactor coolant loop~~ shall be OPERABLE ~~with lift settings as specified in Table 3.7-2~~ (A.3)

APPLICABILITY: MODES 1, 2 and 3.

Appl: Action A Action B

ACTION: Insert proposed Action A and first Condition of Condition B (L.2)

~~two~~ a. With ~~one~~ or more main steam line code safety valves inoperable, operation in MODES 1, 2 and 3 may proceed provided, that within 4 hours, either the inoperable valve is restored to OPERABLE status or the Power Range Neutron Flux High Setpoint trip is reduced per Table 3.7-1; otherwise, be in at least HOT STANDBY within the next 6 hours and in ~~COLD SHUTDOWN~~ MODE 4 within the ~~following~~ 30 hours. (12) (L.3) (M.2)

Action C

Insert proposed Required Action B.2 Note

b. ~~The provisions of Specification 3.0.4 are not applicable~~ (M.1)

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

4.7.1.1 ~~No additional Surveillance Requirements other than those required by~~ Specification 4.0.5.

Insert proposed SR 3.7.1.1

(L.4)

or if one or more steam generators have ≥ 4 MSSVs inoperable, (M.2)

A.1

03-06-96

ITS

Table 3.7-1

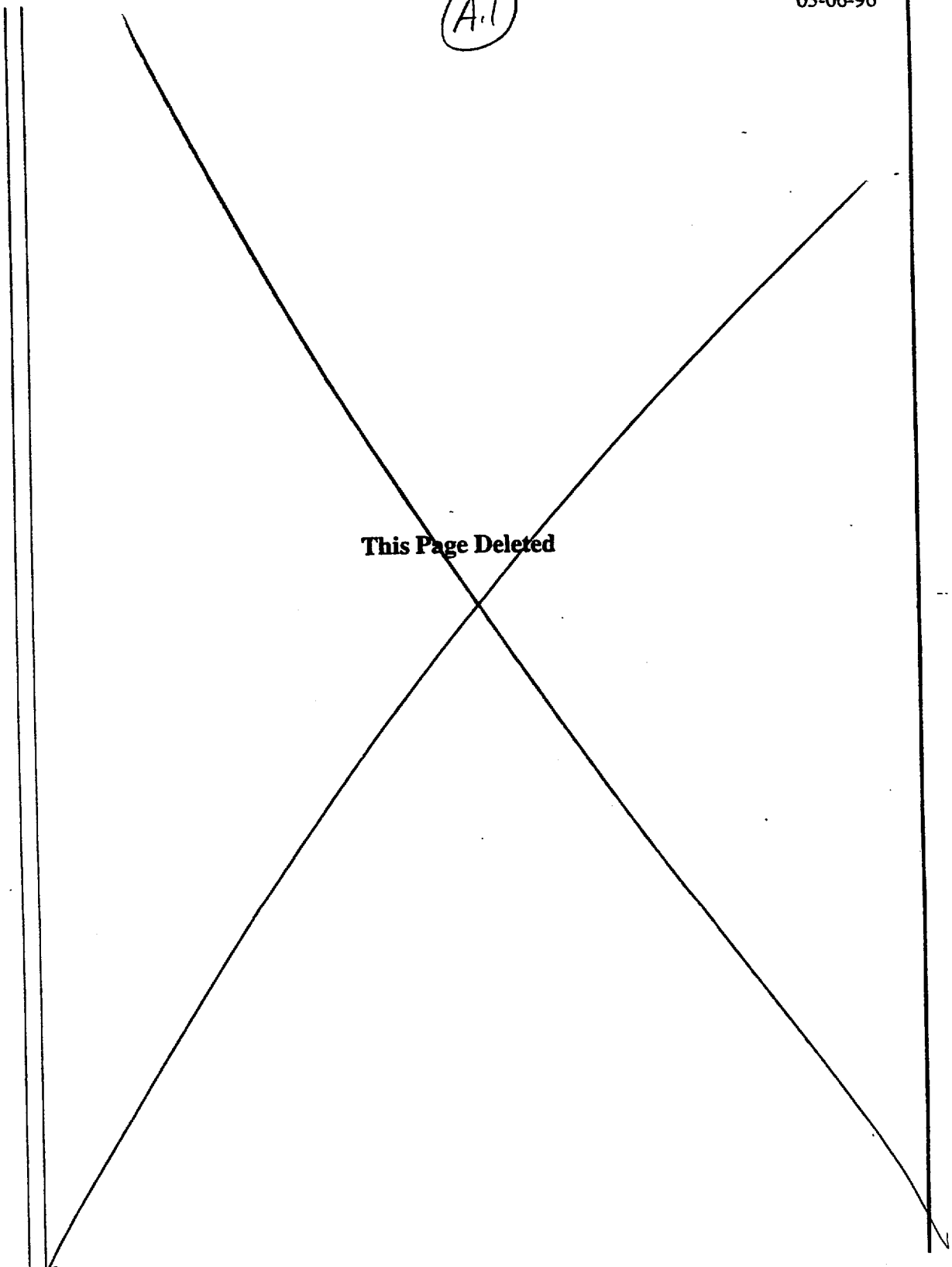
TABLE 3.7-1

MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES

Maximum Number of OPERABLE Safety Valves on Any Operating Steam Generator	Maximum Allowable Power Range Neutron Flux High Setpoint (Percent of RATED THERMAL POWER)
1 4	52
2 3	37
3 2	21

A.2

A.1



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ITS Table 3.7.1-2

TABLE 3.7-2

STEAM LINE SAFETY VALVES PER LOOP

VALVE NUMBER	LIFT SETTING (± 3%)*	ORIFICE SIZE
a. SV-MS 101 A, B, C	1085 psig	16 in^2
b. SV-MS 102 A, B, C	1095 psig	16 in^2
c. SV-MS 103 A, B, C	1110 psig	16 in^2
d. SV-MS 104 A, B, C	1120 psig	16 in^2
e. SV-MS 105 A, B, C	1135 psig	16 in^2

L.5

A.1

* The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure. All steam line safety valves shall be returned to an "as left" lift setting of their nominal lift setting ± 1%.

LA.1

SR 3.7.1.1

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Rev 0

ITS 3.7.1

UNIT 2

A.1

ITS 3.7.1

03-06-96

3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE

SAFETY VALVES

Insert proposed Actions Note

L.1

ITS

LIMITING CONDITION FOR OPERATION

3.7.1

3.7.1.1 Five All main steam line code safety valves associated with each steam generator of an unisolated reactor coolant loop shall be OPERABLE with lift settings as specified in Table 3.7-2.

A.3

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

Insert proposed Action A and first Condition of Condition B

L.2

Appl

Action A

Action B

a. Two With one or more main steam line code safety valves inoperable, operation in MODES 1, 2 and 3 may proceed provided, that within 4 hours, either the inoperable valve is restored to OPERABLE status or the Power Range Neutron Flux High Setpoint trip is reduced per Table 3.7-1, otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 (12) hours.

L.3

M.2

Action C

Insert proposed Required Action B.2 Note

MODE 4

b. The provisions of Specification 3.0.4 are not applicable.

M.1

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

4.7.1.1 No additional Surveillance Requirements other than those required by Specification 4.0.5.

L.4

Insert proposed SR 3.7.1.1

Or if one or more steam generators have ≥ 4 MSSVs inoperable,

M.2

ITS 3.7.1

A.1

03-06-96

ITS

Table 3.7.1-1

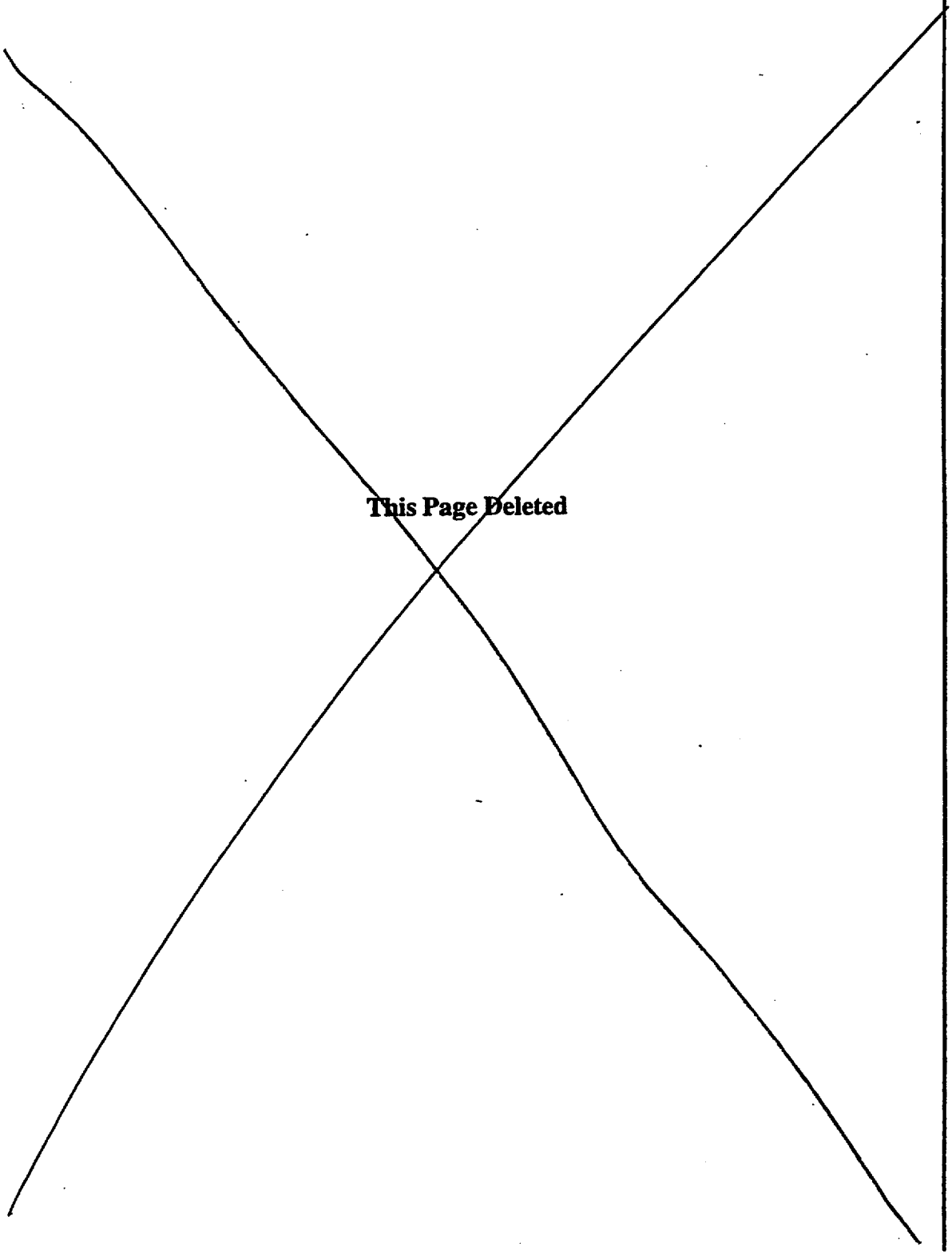
TABLE 3.7-1

MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES

Maximum Number of ~~Inoperable~~ OPERABLE Safety Valves on Any Operating Steam Generator	Maximum Allowable Power Range Neutron Flux High Setpoint (Percent of RATED THERMAL POWER)
1 ← 4	52
2 ← 3	37
3 ← 2	21

A.2

A.1



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ITS

Table 3.7.1-2

TABLE 3.7-2

STEAM LINE SAFETY VALVES PER LOOP

VALVE NUMBER	LIFT SETTING (± 3%)*	ORIFICE SIZE
a. SV-MS 201 A, B, C	1085 psig	16 in^2
b. SV-MS 202 A, B, C	1095 psig	16 in^2
c. SV-MS 203 A, B, C	1110 psig	16 in^2
d. SV-MS 204 A, B, C	1120 psig	16 in^2
e. SV-MS 205 A, B, C	1135 psig	16 in^2

L.5

A.1

* The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure. All steam line safety valves shall be returned to an "as left" lift setting of their nominal lift setting ± 1%.

LA.1

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 Table 3.7-1 states the maximum allowable Power Range Neutron Flux - High setpoint as a function of the number of inoperable main steam safety valves. ITS Table 3.7.1-1 states the maximum allowable Power Range Neutron Flux - High setpoint as a function of the number of OPERABLE main steam safety valves. This changes the CTS by stating the maximum allowable Power Range Neutron Flux - High setpoint as a function of the number of OPERABLE, vice inoperable, main steam safety valves.

This change is acceptable because the maximum allowable Power Range Neutron Flux - High setpoint for a condition of the main steam safety valves has not changed. This change is designated as administrative because it does not result in a technical change to the specifications.

A.3 CTS 3.7.1.1 states, "All main steam line code safety valves associated with each steam generators of an unisolated reactor coolant loop shall be OPERABLE with lift settings as specified in Table 3.7-2." ITS 3.7.1 states, "Five MSSVs per steam generator shall be OPERABLE." This changes the CTS by stating the number of MSSVs required to be OPERABLE per steam generator, eliminating a reference to unisolated loops, and eliminating a reference to Table 3.7-2.

This change is acceptable because the technical requirements have not changed. Each steam generator has five MSSVs. Therefore, "All" MSSVs per steam generator and "Five" MSSVs per steam generator is equivalent. In the MODES of applicability of this specification (MODES 1, 2, and 3), all RCS loops are required to be unisolated in accordance with ITS 3.4.17. Therefore, this reference to unisolated loops is unnecessary. In the ITS, the Table equivalent to CTS Table 3.7-2 is referenced in Surveillance 3.7.1.1. SR 3.0.1 states that failure to meet a Surveillance is failure to meet the LCO. Therefore, moving the Table reference from the LCO to a Surveillance has no effect. These changes are designated as administrative because they do not result in technical changes to the specifications.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.7.1.1 states that the provisions of Specification 3.0.4 are not applicable. ITS 3.7.1 does not contain an exception to LCO 3.0.4. However, ITS SR 3.7.1.1 contains

a Note which states, "Only required to be performed in MODES 1 and 2." This changes the CTS by eliminating a general exception to 3.0.4 with a specific exception to allow entry into MODES in the Applicability to allow performance of a Surveillance.

The purpose of the CTS 3.7.1.1 Specification 3.0.4 exception is to allow entry into MODES 1 or 2 in order to establish the requirements necessary to perform required testing on MSSVs. However, the exception is not specific, and allows entry into the Applicability of CTS 3.7.1.1 while relying on action due to any reason. ITS SR 3.7.1.1 contains a specific Note which allows entry into MODE 3 for performance of require tests. This change is acceptable because the ITS Surveillance Note provides the necessary flexibility to enter MODE 3 to perform the required testing, while maintaining the requirement that the MSSVs be considered capable of performing their safety function if required. This change is designated as more restrictive because it replaces a general allowance with a specific allowance.

M.2 CTS 3.7.1.1 ACTION (a) states, in part, that if an inoperable main steam safety valve is not restored to OPERABLE status or the power range neutron flux high setpoint is not reduced to the specified value within 4 hours then the unit must be placed in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours. ITS 3.7.1 Action C states that if the Required Actions and associated Completion Times are not met, or if one or more steam generators have ≥ 4 MSSV inoperable, the unit must be placed in Mode 3 within 6 hours and Mode 4 within 12 hours. This changes the CTS by providing specific actions for one or more steam generators with ≥ 4 MSSVs inoperable and requiring the unit to be in MODE 4 within 12 hours instead of COLD SHUTDOWN (MODE 5) within 36 hours.

The purpose of CTS 3.7.1.1 ACTION a is to place the unit in a condition where the LCO is not applicable. The CTS does not provide a maximum allowable Power Range Neutron Flux - High setpoint for 1 or no MSSVs OPERABLE in any one steam generator. Therefore, CTS 3.0.3 would be entered in this condition. CTS LCO 3.0.3 requires the unit to be in MODE 4 within 13 hours. ITS 3.7.1, Action C, requires the unit to be in MODE 4 within 12 hours. CTS Action a states that the unit must be in MODE 5 in 36 hours. However, the specification is only applicable in MODES 1, 2, and 3. Therefore, under LCO 3.0.1, the CTS only requires entry into MODE 4, not MODE 5. The CTS places no time limit on reaching MODE 4, therefore, the entire 36 hours may be used to enter MODE 4. The ITS allows 12 hours to enter MODE 4. These changes are designated as more restrictive because the unit is required to be placed in MODE 4 in a shorter period of time that is required by the CTS.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

LA.1 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 3.7.1.1, Table 3.7-2 , is modified by a footnote that states, "The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure. ITS 3.7.1 does not contain this information. This changes the CTS by eliminating details on setting the lift pressure.

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 lift settings and the definition of OPERABLE states that the components must be capable of performing their safety function. This makes clear that the MSSVs must be adjusted to lift at the settings given under the conditions that the safety analysis assumes the MSSVs will operate. 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.

LESS RESTRICTIVE CHANGES

L.1 CTS 3.7.1.1, Action a, provides for one or more main steam safety valves (MSSVs) to be inoperable with the unit operating in MODES 1, 2, and 3. The ACTION requires that within 4 hours the MSSV(s) be restored to OPERABLE status, or the Power Range Neutron Flux High Setpoint Trip(s) to be reduced in accordance with the requirements of Table 3.7-1. ITS 3.7.1, ACTIONS Note, states "Separate Condition entry is allowed for each MSSV." This changes the CTS by allowing separate condition entry for each inoperable MSSV.

The purpose of the ITS ACTIONS NOTE is to allow a separate completion clock for each MSSV that is inoperable. This change is acceptable because it provides the clarification of the Completion Time when one valve is inoperable and, subsequently, a second valve becomes inoperable. This change also provides the Completion Time to evaluate the unit condition with each inoperable valve without challenging the unit during reduction of power. In addition, this change does not modify the technical requirements of reducing power in accordance with Table 3.7-1. This change is considered less restrictive because it provides a separate Completion Time clock for each time one or more MSSV(s) are discovered inoperable.

L.2 *(Category 4 – Relaxation of Required Action)* CTS 3.7.1.1 states that with one or more MSSVs inoperable, reduce the Power Range Neutron Flux - High trip setpoint

within 4 hours. ITS 3.7.1, Action A, states that with one or more steam generators with one MSSV inoperable and the Moderator Temperature Coefficient (MTC) zero or negative at all power levels, reduce THERMAL POWER to ≤ 52% RTP within 4 hours. ITS 3.7.1, Action B, states that with one or more steam generators with one MSSV inoperable and the MTC positive at any power levels or one or more steam generators with two or more MSSVs inoperable, reduce THERMAL POWER to ≤ the % RTP listed in Table 3.7.1-1 and reduce the Power Range Neutron Flux - High reactor trip setpoint to less than the limit in Table 3.7.1-1. This changes the CTS by not requiring the Power Range Neutron Flux - High trip setpoint be reduced when only one MSSV per steam generators is inoperable and the MTC is zero or negative at all power levels.

The purpose of CTS 3.7.1.1 is to ensure that the MSSVs are capable of relieving Main Steam System pressure. 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 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 repair period. In the case of only a single inoperable MSSV on one or more steam generators and a non-positive MTC, a reactor power reduction alone is sufficient to limit primary side heat generation such that overpressurization of the secondary side is precluded for any RCS heatup event. Furthermore, for this case there is sufficient total steam flow capacity provided by the turbine and remaining OPERABLE MSSVs to preclude overpressurization in the event of an increased reactor power due to reactivity insertion, such as in the event of an uncontrolled RCCA bank withdrawal at power. 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.3 *(Category 4 – Relaxation of Required Action)* CTS 3.7.1.1 states that with one or more MSSVs inoperable, reduce the Power Range Neutron Flux - High trip setpoint within 4 hours. ITS 3.7.1, Action B, also requires the Power Range Neutron Flux - High trip setpoint to be reduced, but is modified by at Note stating that this action is only required in MODE 1. This changes the CTS by only requiring the Power Range Neutron Flux - High trip setpoint be reduced when in MODE 1.

The purpose of CTS 3.7.1.1 is to ensure that the MSSVs are capable of relieving Main Steam System pressure. 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 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 repair period. In MODES 2 and 3, the reactor protection system trips specified in LCO 3.3.1, "Reactor Trip System Instrumentation," provide sufficient protection. 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 7 – Relaxation Of Surveillance Frequency)* CTS 4.7.1.1 states that no additional Surveillance Requirements other than those required by Specification 4.0.5 are required. CTS 4.0.5 references the Inservice Testing Program. ITS SR 3.7.1.1 requires verify each required MSSV lift setpoint in accordance with the Inservice Testing Program at a Frequency in accordance with the Inservice Testing Program. ITS SR 3.7.1.1 is modified by a Note which states, "Only required to be performed in MODES 1 and 2." This changes the CTS by not requiring the testing performed under the Inservice Testing Program to be performed in MODES 1 and 2.

The purpose of ITS SR 3.7.1.1 is to ensure that the MSSVs are capable of performing their safety function. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The Note to Surveillance 3.7.1.1 allows entry into MODE 3 prior to performing the SR. The MSSVs may be either bench tested or tested in situ at hot conditions using an assist device to simulate lift pressure. Therefore, this Note allows establishment of the necessary conditions for performing tests on the MSSVs. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.5 *(Category 1 – Relaxation of LCO Requirements)* CTS LCO 3.7.1.1 Table 3.7-2 lists the orifice size for the main steam safety valves. ITS 3.7.1 does not contain this information. This changes the CTS by eliminating the diameter of the MSSVs from the Technical Specifications.

The purpose of CTS 3.7.1.1 is to ensure that the MSSVs are capable of relieving Main Steam System pressure. 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. ITS 3.7.1 retains the lift settings of the MSSVs, which controls the MSSV opening sequences in an overpressure event and ensures that the Main Steam System is not overpressurized. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

UNIT 1

A.1

11-26-77

ITS

PLANT SYSTEMS

MAIN STEAM TRIP VALVES

LIMITING CONDITION FOR OPERATION

LCO

3.7.1.5 Each main steam trip valve shall be OPERABLE.

Appl.

APPLICABILITY: MODES 1, 2 and 3. (MODES) except when all MSTVs are closed and deactivated

L.1

ACTION:

M.4

Action A / Action B — Insert proposed Condition C Note

MODES 1 - With one main steam trip valve inoperable, POWER OPERATION may continue provided the inoperable valve is either restored to OPERABLE status ~~or closed~~ within 4 hours; otherwise, be in ~~HOT~~ (Mode 2) ~~SHUTDOWN~~ within ~~the next 12~~ hours. (B) (6)

L.2

M.5

L.3

Action C — or more

MODES 2 and 3 - With one main steam trip valve inoperable, subsequent operation in MODES ~~1,~~ 2 or 3 may proceed ~~and the provisions of specification 3.0.4 are not applicable~~ provided the main steam trip valve is ~~maintained~~ closed; ~~otherwise~~, be in HOT SHUTDOWN within ~~the next 12~~ hours. (6) within 8 hours

M.3

Action D — and MODE 4 within 12 hours

Insert proposed Action C.2

SURVEILLANCE REQUIREMENTS

M.1

Insert proposed SR 3.7.2.1 Note

L.4

4.7.1.5 Each main steam trip valve shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to ~~Specification 4.0.5~~ the Inservice Testing Program.

A.2

Insert proposed SR 3.7.2.2

M.2

UNIT 2

A.1

8-21-80

ITS

PLANT SYSTEMS

MAIN STEAM TRIP VALVES

LIMITING CONDITION FOR OPERATION

LCO 3.7.1.5 Each main steam trip valve shall be OPERABLE.

Appl. APPLICABILITY: MODES 1, 2 and 3. (MODES) (except when all MSTVs are closed and deactivated) L.1

ACTION:

Action A MODES 1 - With one main steam trip valve inoperable, POWER OPERATION may continue provided the inoperable valve is either restored to OPERABLE status or closed within 4 hours; otherwise, be in HOT M.4

Action B (MODE 2) SHUTDOWN within the next 12 hours. (6) (8) L.2

(or more) M.5

Action C MODES 2 - With one main steam trip valve inoperable, subsequent L.3

and 3 operation in MODES 1, 2 or 3 may proceed and the provisions of specification 3.0.4 are not applicable provided the main steam trip M.3

Action D valve is maintained closed; otherwise, be in HOT SHUTDOWN within the (6) next 12 hours. (within 8 hours) M.1

Insert proposed Action C.2

Insert proposed Condition C Note L.3

SURVEILLANCE REQUIREMENTS

SR 3.7.2.1 Insert proposed SR 3.7.2.1 Note L.4

4.7.1.5 Each main steam trip valve shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to Specification 4.0.5. A.2

the Inservice Testing Program

SR 3.7.2.2 Insert proposed SR 3.7.2.2 M.2

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 Surveillance 4.7.1.5 states that the MSTV shall be demonstrated OPERABLE by full closure within 5 seconds when tested pursuant to Specification 4.0.5. Specification 4.0.5 refers to the Inservice Test Program requirements. ITS SR 3.7.2.1 states each MSTV is verified OPERABLE with a closure time of $\leq$ 5 seconds in accordance with the Inservice Testing Program. This changes the CTS by replacing a reference to CTS 4.0.5 to a reference to the Inservice Testing Program.

This change is acceptable because the requirements have not changed. Both the CTS and the ITS state that the MSTVs must be tested in accordance with the Inservice Testing Program. This change is designated as administrative as the technical requirements are not changed.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.7.1.5 ACTIONS for MODES 2 and 3 states subsequent operation in MODES 1, 2, or 3 may proceed provided the inoperable MSTV is maintained closed. If the valve is not maintained closed, the unit must be in HOT SHUTDOWN (MODE 3) within the next 12 hours. ITS 3.7.2 Required Actions C.1 requires an inoperable MSTV to be closed within 8 hours and Required Action C.2 requires the valve to be verified closed once per 7 days. Otherwise, Action D requires the unit must be in MODE 3 within 6 hours and MODE 4 within 12 hours. This changes the CTS by specifying a time within which the inoperable MSTV must be closed (8 hours), requiring periodic verification that the inoperable MSTV is closed, requiring the unit to be in MODE 3 within 6 hours if the Required Actions and Associated Completion Times are not met, and requiring the unit to be in MODE 4 within 12 hours if the Required Actions and associated Completion Times are not met.

The purpose of the ITS Required Actions is to place the inoperable MSTV in a position consistent with the safety analysis. This change is acceptable because the additional requirements are prudent if the main steam trip valves(s) cannot be restored to an OPERABLE status in MODES 2 and 3. The closed MSSVs are in the position assumed by the safety analysis. Specifying a time requirement for closing an inoperable valve is necessary to minimize the likelihood of an event occurring which

would require the action of the MSTV when it is inoperable. The requirement to periodically verify the valves are closed is reasonable to ensure the valves have not been unintentionally mispositioned. The requirement to enter MODE 4 is necessary to exit the MODE of applicability of the specification and enter a MODE in which the valves are not relied upon in the safety analysis. The requirement to be in MODE 3 within 6 hours and MODE 4 within 12 hours is consistent with similar ITS requirements, such as ITS 3.0.3. This change is designated as more restrictive because the ITS applies more restrictive actions and Completion Times than the CTS.

M.2 The CTS does not require testing to verify that the MSTV close on an actuation signal. ITS SR 3.7.2.2 requires verification that each MSTV actuates to the isolation position on an actual or simulated actuation signal. This changes the CTS by requiring verification that each MSTV actuates to the isolation position on an actual or simulated actuation signal.

The purpose of the ITS SR 3.7.2.2 is to verify the MSTV can close on an actual or simulated actuation signal. This change is acceptable because the test is conducted to ensure that the MSTV will perform its safety function. This change is considered more restrictive because a new requirement is added to the ITS.

M.3 CTS 3.7.1.5, Actions for MODES 2 and 3, allows continued operation in MODES 1, 2, or 3 with an inoperable, closed MSTV and states that the provisions of specification 3.0.4 are not applicable. The specification 3.0.4 exception allows MODE transitions while relying on the CTS 3.7.1.5 Action. ITS 3.7.2, Action C, applies with one or more MSTVs inoperable and does not allow operation in MODE 1 and does not provide an exception to ITS LCO 3.0.4, so MODE transition to MODE 1 is not allowed. This changes the CTS by not allowing operation in MODE 1 with an inoperable, closed MSTV.

The purpose of ITS 3.7.2 is to ensure that operation of the unit with one or more inoperable MSTVs is consistent with the initial assumptions of the accident analyses. In MODE 1, all MSTVs must be OPERABLE to support the assumptions of the safety analysis. Therefore, operation in MODE 1, or entry into MODE 1, with one or more MSTVs inoperable is not allowed. This change is designated as more restrictive because operation which would have been allowed in the CTS is prohibited in the ITS.

M.4 CTS 3.7.1.5 ACTION for MODE 1 specifies that POWER OPERATION may continue when one MSTV is inoperable if the inoperable valve is restored to OPERABLE status or closed within 4 hours. ITS 3.7.2 ACTION A requires restoring the inoperable valve to OPERABLE status within 8 hours. The ITS does not provide any allowance for continued operation by closing the valve while in MODE 1. This changes the CTS by deleting the allowance for continued operation in MODE 1 with a closed, inoperable MSTV.

The purpose of CTS 3.7.1.5 ACTION for MODE 1 is to allow continued operation when one MSTV is inoperable and the inoperable valve is closed. This change is acceptable because the safety analysis assumes that all MSTVs are OPERABLE in MODE 1 and operation in MODE 1 with a closed, inoperable MSTV is not consistent with the safety analysis. This change is designated more restrictive because an allowance for continued operation by closing an inoperable MSTV in MODE 1 is deleted.

M.5 CTS 3.7.1.5 Actions requires that when one main steam trip valve is inoperable in MODE 1, the valve is to be restored to Operable status within 4 hours or the unit is to be in MODE 3 within the next 12 hours. ITS Action A allows 8 hours to restore an inoperable main steam trip valve to OPERABLE status when in MODE 1, and an additional 6 hours to be in MODE 3. This changes the CTS allowed outage time to be in MODE 3 with an inoperable MSTV from 16 hours to 14 hours. The change in time from 4 hours to 8 hours to restore an inoperable MSTV is discussed in DOC L.2.

This change is acceptable because the times provided to change MODES are consistent with similar Actions in the ITS. ITS LCO 3.0.3 allows 6 hours to be in MODE 3. This change is designated more restrictive because less time is provide to be in MODE 3 in the ITS than in the CTS.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

None

LESS RESTRICTIVE CHANGES

L.1 *(Category 2 – Relaxation of Applicability)* CTS 3.7.1.5 is applicable in MODES 1, 2, and 3. ITS LCO 3.7.2 is applicable in MODE 1, and in MODES 2 and 3 except when all MSTVs are closed and deactivated. This changes the CTS by making the specification not applicable in MODES 2 and 3 when all MSTVs are closed and deactivated.

The purpose of the ITS 3.7.2 Applicability exception is to clarify that the MSTVs are not required when they are in a position that supports the Safety Analysis. This change is acceptable because the requirements continue to ensure that the structures, systems, and components are maintained in the MODES and other specified conditions assumed in the safety analyses and licensing basis When the valves are in

the closed position, they are in their assumed accident position. This change is designated as less restrictive because the LCO requirements are applicable in fewer operating conditions than in the CTS.

L.2 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.1.5 Actions requires that when one main steam trip valve is inoperable in MODE 1, the valve is to be restored to Operable status within 4 hours or the unit is to be in Hot Shutdown (MODE 3) within the next 12 hours. ITS Action A allows 8 hours to restore an inoperable MSTV to OPERABLE status when in MODE 1, and an additional 6 hours to be in MODE 2. This changes the CTS Completion Time to restore an inoperable MSTV from 4 hours to 8 hours, and the required MODE from MODE 3 to MODE 2. The change in the time to enter MODE 3 from 16 hours to 14 hours is discussed in DOC M.5.

The purpose of CTS 3.7.1.5 Action is to provide time to restore the inoperable MSTV to OPERABLE status and to specify the appropriate MODE to enter with an inoperable MSTV. 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. This change is acceptable because of the low probability of an accident occurring during the allowed time which would require closure of the MSTVs. The 8 hour completion time is greater than that normally allowed for containment isolation valves because the main steam trip valves are valves that isolate a closed system penetrating containment. These valves differ from other containment isolation valves in that the closed system provides an additional means for containment isolation. Once MODE 2 is entered, the appropriate Condition to enter is Condition C, which provide appropriate actions. 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.

L.3 *(Category 4 – Relaxation of Required Action)* CTS 3.7.1.5 Actions allow only one MSTV to be inoperable in MODES 2 and 3. If more than one MSTV is inoperable; LCO 3.0.3 entry is required. ITS 3.7.2 Action C allows one or more main steam trip valves to be inoperable in MODES 2 and 3, and contains a Note which states, "Separate Condition entry is allowed for each MSTV." This changes the CTS by allowing more than one MSTV to be inoperable in MODES 2 and 3.

The purpose of ITS 3.7.2 is provide appropriate requirements and compensatory actions for the MSTVs. 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 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 repair period. In MODES 2 and 3, the probability of an event occurring which would require the actuation of the MSTVs is small. Also, the energy in the RCS and secondary plant is substantially smaller than in MODE 1, so the need for the MSTVs is reduced. 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 7 – Relaxation Of Surveillance Frequency)* LCO 3.7.1.5 requires that the valves to be OPERABLE in MODES 1, 2, and 3. CTS 4.0.4 requires MSTVs to be tested prior to entry into the MODES of Applicability. ITS SR 3.7.2.1 contains a NOTE which allows entry into MODE 3 for the purpose of performing the required testing. This changes the CTS by allowing the plant to enter MODE 3 prior to the performance of the required testing.

The purpose of ITS SR 3.7.2.1 NOTE is to allow the unit to achieve the conditions necessary to perform the required Surveillance prior to performing the test. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. There is insufficient steam pressure in MODE 4 to assist in the closing of the MSTVs. Steam flow is necessary to establish the conditions necessary to test the valves in the environment in which they would operate. This can be accomplished is in MODE 3. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

UNIT 1

ITS 3.7.3

ITS

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3.7.3

Insert proposed Specification 3.7.3

IM.1

page 1 of 1

Rev. 0

UNIT 2

ITS 3.7.3.

ITS

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3.7.3 Insert proposed Specification 3.7.3

M.1

ADMINISTRATIVE CHANGES

None

MORE RESTRICTIVE CHANGES

M.1 CTS does not have any requirement for Main Feedwater Isolation Valves (MSIVs), Main Feedwater Pump Discharge Valves (MFPDVs), Main Feedwater Regulating Valves (MFRVs) and Main Feedwater Regulating Bypass Valves to be OPERABLE, other than a requirement for an actuation signal to be supplied to the valves in CTS 3.3.2.1. ITS 3.7.3 requires the MFIVs, MFPDVs, MFRVs, and MFRBVs be OPERABLE in MODES 1, 2, and 3. This changes the CTS by incorporating the requirements of ITS 3.7.3.

The safety-related function of the MFIVs, MFPDVs, MFRVs and the MFRBVs is to provide isolation of main feedwater from the secondary side of the steam generators following a high energy line break. This change is acceptable because the safety analyses assume that closure of the MFRBVs and MFIVs, the MFRBVs and the MFRVs, or of the MFPDVs terminates the addition of feedwater to an affected steam generator, limits the mass and energy release for steam or feedwater line breaks, and minimizes the positive reactivity effects of the Reactor Coolant System (RCS) cooldown associated with the blowdown. This change is designated as more restrictive because it adds new requirements to the CTS.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

None

LESS RESTRICTIVE CHANGES

None

UNIT 1

ITS

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Insert proposed specification 3.7.4

M.1

3.7.4

Rev.0

UNIT 2

ITS 3.7.4

ITS

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3.7.4

Insert proposed Specification 3.7.4

M.1

Rev. 0

ADMINISTRATIVE CHANGES

None

MORE RESTRICTIVE CHANGES

M.1 CTS does not have any Technical Specification requirements for atmospheric dump valves. ITS 3.7.4 specifies the requirements for the "Steam Generator Power Operated Relief Valves," SGPORVs, consistent with the requirements of ISTS 3.7.4, "Atmospheric Dump Valves." This changes the CTS by incorporating the requirements of ITS 3.7.4.

The purpose of the ITS 3.7.4 requirements are to ensure that at least one SGPORV is available to conduct a unit cool down following a Steam Generator Tube Rupture. This change is acceptable because the SGPORVs provide a means for the operator to cool down the unit to RHR entry conditions for accidents accompanied by a loss of offsite power. This change is considered more restrictive because it is adding a new requirements to the Technical Specification.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

None

LESS RESTRICTIVE CHANGES

None

UNIT 1

ITS

PLANT SYSTEMS

A.1

AUXILIARY FEEDWATER SYSTEM (AFW)

LIMITING CONDITION FOR OPERATION

LCO 3.7.5 3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with: (Trains) A.3 LA.1

a. Two motor driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and

b. One steam turbine driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

add proposed LCO Note M.1

APPLICABILITY: MODES 1, 2 and 3. L.3 M.1

MODE 4 when steam generator is relied upon for heat removal

ACTION:

add proposed Action A L.8 and 10 days from discovery to meet the LCO

Action A

Action B

Action C

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to an OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the following 6 hours. A.3 M.1 Note 4 with 18 hour (In Modes 1, 2 or 3) 18

A.1 add first proposed Condition C (Trains) A.3

b. With two auxiliary feedwater pumps inoperable be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours. L.9

Action D

add proposed Note to Action D L.6

c. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible. A.3

(Trains) (Train)

Action E

add proposed Action E M.1

SURVEILLANCE REQUIREMENTS

4.7.1.2 In addition to the requirements of Specification 4.0.5, each auxiliary feedwater pump shall be demonstrated OPERABLE: A.1

a. At least once per 31 days by: A.2 and both steam supply flow paths to the steam turbine driven pump

SR 3.7.5.1 1. 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. L.2

add proposed Note to SR 3.7.5.2 L.4

SR 3.7.5.2 b. At least once per 92 days on a STAGGERED TEST BASIS by: Test in accordance with the IST program

1. Verifying that each pump develops adequate discharge pressure and flow. The acceptance criterion shall be consistent with Specification 4.0.5. The provisions of Specification 4.0.4 are not applicable to steam turbine driven pump testing. L.2

Note in SR 3.7.5.2

ITS

A.1

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

LA.2

c. At least once per 18 months during shutdown by: L.7

add proposed Note to SR 3.7.5.3

3.7.5.3 1. Verifying that each automatic valve in the flow path actuates to its correct position on an auxiliary feedwater actuation test signal. not locked, sealed, or otherwise secured in position M.1 L.1 actual or

add proposed Notes to SR 3.7.5.4

3.7.5.4 2. Verifying that each auxiliary feedwater pump starts automatically upon receipt of an auxiliary feedwater actuation test signal. L.2 M.1 actual or L.1

3.7.5.5 d. The auxiliary feedwater system flow paths shall be demonstrated OPERABLE prior to entry into MODE 3 following each ~~COLD SHUTDOWN~~ by performing a flow test to verify the normal flow path from the emergency condensate storage tank through each auxiliary feedwater pump to its associated steam generator. L.5

Mode 5, 6, or defueled for a cumulative period of > 30 days

UNIT 2

ITS

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM (AFW)

A.1

LIMITING CONDITION FOR OPERATION

A.3

LCO 3.7.5 3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with: (trains) LA.1

a. Two motor driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and

b. One steam turbine driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

add proposed LCO Note M.1

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

MODE 4 when steam generator is relied upon for heat removal

ACTION:

Action A — add proposed Action A (L.8, L.3) (A.3 train) and 10 days from discovery to meet the LCO. L.8

Action B

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to an OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the following 6 hours:

Action C — (A.1) add first proposed Condition C (trains A.3) (In MODES 1, 2, or 3 MODE 4 within 12 hours) M.1

b. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours. (18)

L.9

Action D — add proposed Note to Action D L.6

c. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

Action E — add proposed Action E (trains A.3 train) M.1

SURVEILLANCE REQUIREMENTS

4.7.1.2 In addition to the requirements of Specification 4.0.5, each auxiliary feedwater pump shall be demonstrated OPERABLE: A.1

SR 3.7.5.1 a. At least once per 31 days by: (and both steam supply flow paths to the steam driven pump) A.2

1. 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.

add proposed Note to SR 3.7.5.2 L.2

SR 3.7.5.2 b. At least once per 92 days on a STAGGERED TEST BASIS by: (Test in accordance with IST program) L.4

1. Verifying that each pump develops adequate discharge pressure and flow. The acceptance criterion shall be consistent with Specification 4.0.5. The provisions of Specification 4.0.4 are not applicable to steam turbine driven pump testing. L.2

Note in SR 3.7.5.2

ITS 3.7 PLANT SYSTEMS

A.1

SURVEILLANCE REQUIREMENTS (Continued)

LA.2 L.7

c. At least once per 18 months during shutdown by:

Add proposed Note to SR 3.7.5.3

SR 3.7.5.3 1. Verifying that each automatic valve in the flow path actuates to its correct posit on an auxiliary feedwater actuation test signal.

not locked, sealed, or otherwise secured in position M.1

actuator L.1

Add proposed Notes to SR 3.7.5.4

SR 3.7.5.4 2. Verifying that each auxiliary feedwater pump starts automatically upon receipt an auxiliary feedwater actuation test signal.

L.2 M.1

ACTUATOR L.1

SR 3.7.5.5 d. The auxiliary feedwater system flow paths shall be demonstrated OPERABLE prior t entry into MODE 3 following each COLD SHUTDOWN by performing a flow test to ve the normal flow path from the emergency condensate storage tank through each auxiliary feedwater pump to its associated steam generator.

L.5

MODES 5, 6, or defueled for a cumulative period of > 30 days

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 4.7.1.2.a.1 requires verification that each AFW valve in the flow path not locked, sealed, or otherwise secured in position is in its correct position. ITS SR 3.7.5.1 requires verification that each AFW valve in each water flow path, and in both steam supply flow paths to the steam turbine driven pump not locked, sealed, or otherwise secured in position is in its correct position. This changes CTS 4.7.1.2.a.1 by expanding the description of the applicable flow path to specifically include the steam supply valves (MS-TV-111A and MS-TV-111B for Unit 1 and MS-TV-211A and MS-TV-211B for Unit 2) to the turbine driven AFW pump. These valves are currently considered required to be verified by CTS 4.7.1.2.a.

This change is acceptable because CTS 4.7.1.2.a.1 is currently considered to be applicable to all valves in both water and steam flow paths. Therefore, the methodology for the surveillance requirement remains technically the same. This change is designated as administrative because it does not modify the CTS requirement.

A.3 CTS LCO 3.7.1.2 states the requirements for the AFW system in terms of "pumps and associated flow paths." CTS 3.7.1.2 Actions a, b, and c refer to the requirements in terms of "pump" or "pumps" when addressing the AFW system. ITS LCO 3.7.5 and the associated ACTIONS state the requirements in terms of "trains required to be OPERABLE". A train consists of a pump and the associated flow path from the Emergency Condensate Storage Tank (ECST) to the associated steam generator (SG). This changes the CTS by adding the term "train" to the CTS to clarify the requirements for the AFW system.

The change is acceptable because it maintains the current technical requirements interpretations of the CTS that pumps, referred to in the ACTIONS, are considered the pumps and associated flow paths as trains. This change is designated as administrative because CTS 3.7.1.2 and ITS 3.7.5 are equivalent requirements.

MORE RESTRICTIVE CHANGES

M.1 CTS LCO 3.7.1.2 is applicable in Modes 1, 2, and 3. ITS LCO 3.7.5 is applicable in Modes 1, 2, and 3, and MODE 4 when the steam generator is relied upon for heat

removal for the system. To support this change in the Applicability, the following additional requirements are added to the CTS:

- A note is added to the LCO that requires an AFW train, supported by a motor driven pump, to be operable in MODE 4;
- CTS Action a states that with an inoperable AFW pump, restore the pump within 72 hours or be in MODE 3 within 6 hours. ITS Action C adds the requirement to be in MODE 4 within 18 hours.
- A new ACTION E is added which requires an immediate action to restore a required inoperable AFW train to OPERABLE status when the SG is required in MODE 4; and
- The addition of Notes to ITS SRs 3.7.5.3 and 3.7.5.4 which state the requirements are not applicable in MODE 4 when a steam generator is relied upon for heat removal.

These changes are acceptable because they ensure the necessary support systems are available when a steam generator is being relied upon for heat removal in Mode 4. The CTS do not have specific requirements for an AFW train to be OPERABLE in MODE 4 when a steam generator is relied upon for heat removal. The definition of OPERABILITY is contained in Section 1.0 of the ITS and requires the applicable systems to be OPERABLE to support the required function. In this case, the AFW system is required to support the SG. These changes clarify this requirement. One AFW train, supplied by a motor driven pump, will provide sufficient water to the SG to remove decay heat in MODE 4. If the AFW train is inoperable, ITS ACTION E requires the initiation of action to restore the AFW train to OPERABLE status immediately. This is acceptable because without the SG it may not be possible to cool down the unit and exit the MODE of applicability. Additionally, during MODE 4, the OPERABLE AFW train does not need to be capable of being placed in service automatically. Manual operation of the system is acceptable, because the heat removal requirements are less in MODE 4. Thus, there would be sufficient time for the operators to diagnose and respond to an RCS temperature excursion. These changes are designated as more restrictive because they place additional requirements on plant operations in MODE 4 that are not required by the CTS.

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description)* CTS LCO 3.7.1.2 requires three independent AFW pumps and associated flow paths to be OPERABLE. This includes the motor driven AFW pumps powered from separate emergency buses, and the steam turbine driven AFW pump capable of being powered from an OPERABLE steam supply system. ITS LCO 3.7.5 will require "Three AFW trains to be OPERABLE"; it does not include design details or define the components

that comprise an OPERABLE AFW train. This changes the CTS by removing description of the AFW system from the Technical Specifications (TS).

The removal of these details, which are related to system design, from the TS is acceptable because this type of information is not necessary to be included to provide adequate protection of public health and safety. The ITS retains all necessary requirements in the LCO to ensure OPERABILITY for the AFW trains. 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 removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements)* CTS SR 4.7.1.2.c requires the testing of the automatic valves in the AFW flow path and the starting of the AFW pumps during shutdown. ITS SRs 3.7.5.3 and 3.7.5.4 require the testing for the pumps and a valve to ensure OPERABILITY is maintained. This change moves the requirement to perform the testing "during shutdown" from the Technical Specifications (TS).

The removal of these details for performing surveillance requirements from the TS is acceptable because this type of information is not necessary to be included to provide adequate protection of public health and safety. The ITS retains the required testing of the pumps and valves under controlled conditions to adequately determine their status without jeopardizing unit operations. This change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. This change is designated as a less restrictive removal of detail change because procedural details for meeting requirements are being removed from the TS.

LESS RESTRICTIVE CHANGES

L.1 *(Category 4 – Relaxation of Surveillance Requirement Acceptance Criteria)* CTS 4.7.1.2.c.1 and 4.7.1.2.c.2 require verification that each automatic valve actuates to its correct position and each AFW pump starts automatically upon receipt of an AFW actuation test signal. ITS SRs 3.7.5.3 and 3.7.5.4 will contain the same requirements, except the ITS requirements will permit the use of an actual or simulated test signal to initiate the component actuation.

The purpose of CTS 3.7.1.2.c.1 and 4.7.1.2.c.2 is to ensure that the AFW system starts automatically when required. 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 components cannot discriminate between an actual or test signal. The use of an actual signal will allow the satisfactory completion of the SRs. Both signals challenge the capability of the components to respond as required. The results of the

testing are unaffected by the type of initiation signal used. Thus, if an unplanned actuation occurs and sufficient information is collected to satisfy the SR, the results would be as valid as a surveillance test conducted with a simulated test signal. 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.2 *(Category 6 – Relaxation of Surveillance Requirement Acceptance Criteria)* CTS SR 4.7.1.2.b.1 provides for the surveillance testing of the AFW pumps. The requirement provides an exception to Specification 4.0.4 for the testing of the AFW steam turbine driven pump. Surveillance requirement 4.7.1.2.c.2 states at least once per 18 months verify each AFW pump will start automatically upon receipt of an auxiliary feedwater actuation test signal. A Note is added to ITS SRs 3.7.5.2 and 3.7.5.4 that allows a delay in the performance of required testing for the turbine driven AFW pump until the required steam pressure of 1005 psig is reached. This changes the CTS by providing an allowance for delaying the performance of required testing without requiring the turbine driven AFW pump to be declared inoperable.

The purpose of CTS SR 4.7.1.2.b.1 is to ensure the turbine driven AFW pump is OPERABLE in MODES 1, 2, and 3. The allowance provides for entry into MODE 3 before requiring the testing of the pump. 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. This change is necessary because the main steam pressure may be insufficient in MODE 4 to accurately test the pump, and only a short time is allowed without verification of the required testing. The majority of SRs demonstrate equipment is, in fact, OPERABLE when the tests are performed. Inconsistent testing results may result if testing of the turbine driven pump is required before establishing a sufficent steam pressure. The allowance will permit the establishment of stable unit conditions and sufficient steam pressure to test the pump and will allow an accurate and consistent method for the testing. 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.3 *(Category 4 – Relaxation of Required Action)* CTS 3.7.1.2 Action a. requires all AFW pumps to be restored to an OPERABLE status within 72 hours for any condition of inoperability. ITS 3.7.5 ACTION A permits 7 days to restore the steam supply valve to an OPERABLE status when the steam turbine driven AFW pump is inoperable due to an inoperable steam supply valve or if one turbine driven AFW pump is inoperable following refueling when MODE 2 has not been entered.. This changes the CTS by extending the ACTION time from 72 hours to 7 days for the steam-driven pump in these conditions.

The purpose of CTS 3.7.1.2, Action a, is to provide a limit on the length of time the unit may remain in the MODES of applicability with a steam driven AFW pump 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 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 repair period. One steam supply valve for the turbine driven AFW pump remains OPERABLE, which will provide the required steam flow for the pump to produce the design flow rate and therefore, the capability to mitigate analyzed accidents (i.e., the pump remains capable of performing its safety function). An inoperable turbine driven pump following a refueling is acceptable because the remaining motor driven AFW trains remain capable of supplying additional redundant trains of AFW and the decay heat in the Reactor Coolant System is low. The probability of an event occurring, during the extended outage time, that would require the inoperable steam supply or turbine-driven AFW pump to function is low. The ACTION and SR provide adequate assurance that the AFW system will continue to meet the assumptions stated in the safety analyses for the AFW system to mitigate postulated accidents. 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 7 – Relaxation of Surveillance Frequency)* CTS SR 4.7.1.2.b requires the testing of the AFW pumps on a 92 day staggered test basis (STB). ITS SR 3.7.5.2 requires the AFW pumps tested in accordance with the Inservice Testing (IST) program. This changes the CTS requirements by allowing the testing of the AFW pumps on a three month basis and not specifically on a 92 day STB.

The purpose of CTS SR 3.7.1.2.b is to demonstrate that the AFW pumps are OPERABLE. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The IST program will continue to require the AFW pumps to be tested on a quarterly Frequency. Planned maintenance will typically continue to maintain the staggered testing of the AFW pumps. The IST program is controlled in accordance with 10 CFR 50.55a. NRC reviews of the IST program and any change to it provides an adequate means of control of the required testing. Therefore, the AFW pump testing will continue on a quarterly but not necessarily on an equally staggered basis. The change does not affect the AFW pumps methods of testing or the capability of the pumps to perform their safety function as assumed in the safety analyses. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.5 *(Category 7 – Relaxation of Surveillance Frequency)* CTS SR 4.7.1.2.d requires that the AFW system flow paths shall be demonstrated Operable prior to entry into MODE 3 following each COLD SHUTDOWN. This requires the flow testing of the AFW train from the ECST to the associated Steam Generator (SG). ITS SR 3.7.5.5 requires the flow path verification only when the unit has been in MODES 5, 6, or defueled for

outages that last for a cumulative period of greater than 30 days. This change to the CTS eliminates performance of the SR for outages of less than 30 days.

The purpose of CTS SR 4.7.1.2.d is to ensure that the AFW flow paths are aligned in the proper position. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. For outages less than 30 days, operating experience has shown that adequate administrative controls exist to ensure the valve lineups remain in the required positions. Every 31 days, the valve lineups will continue to verify each manual, power operated, and automatic valve in the flow path is in the correct position. The allowance does not alter assumptions for the OPERABILITY of the AFW system. The availability of the system to provide water from the ECST to the SGs also remains unchanged. The change does not modify or alter the system design basis requirements. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.6 *(Category 4 – Relaxation of Required Action)* CTS 3.7.1.2 ACTION c. states with three AFW pumps inoperable, immediately initiate corrective action to restore at least one AFW pump to OPERABLE status as soon as possible. This ACTION does not require the plant to be shutdown or provide an exception to Specification 3.0.3. ITS ACTION D requires with three inoperable AFW trains in MODES 1, 2, or 3 initiate action to restore one AFW trains to OPERABLE status immediately. This also adds a Note which state that LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW train is OPERABLE. This changes the CTS requirements for the AFW system to not require a plant shutdown when all AFW trains are inoperable.

The purpose of CTS 3.7.1.2, Action c, is to provide appropriate actions for a condition with no OPERABLE AFW trains. 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 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 repair period. The design of the AFW system is to mitigate analyzed accidents. Allowing the restoration of one of the AFW trains enhances the ability of the safety system to mitigate accidents that could be initiated by a transient. 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.7 *(Category 6 – Relaxation of Surveillance Requirement Acceptance Criteria)* CTS Surveillance Requirement 4.7.1.2.c.1 requires the verification of the actuation for each AFW automatic valve in the flow path to its correct position. This is applicable for each valve on an AFW actuation test signal at least once per 18 months when the plant

is shutdown. ITS SR 3.7.5.3 requires verifying that each AFW automatic valve not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal once every 18 months. This changes the CTS by only requiring the testing of AFW valves that are not locked, sealed or otherwise secured in position.

The purpose of CTS SR 3.7.1.2.c.1 is to verify that the automatic valves in the AFW System flow paths align to the correct position. 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 testing of automatic valves that are aligned and secured into the required safety position is unnecessary. Valves secured in the safety position will satisfy the safety analysis assumption for the mitigation of analyzed accidents. In addition, SR 3.7.5.1 verifies all of the valves in the flow path to be in the correct position every 31 days. 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.8 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.1.2 ACTION a. states, "With one AFW pump inoperable, restore the required AFW pumps to OPERABLE status within 72 hours." ITS 3.7.5 ACTION A states, "One steam supply to turbine driven pump inoperable, or one turbine driven AFW pump inoperable following refueling, restore the inoperable equipment to OPERABLE status within 7 days." ACTION B requires, "One AFW train inoperable in MODE 1, 2, or 3 for any reason other than Condition A, restore AFW train to OPERABLE status within 72 hours." ACTIONS A and B have a modified Completion Time that states, "10 days from the discovery of failure to meet the LCO." This changes the CTS by allowing up to 10 days to have a combination of inoperable AFW trains.

The purpose of the second Frequency in the ITS is to place a limit on the length of time the unit can operate while in an Action without meeting the LCO. 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. With the addition of Condition A, it is possible to not meet the LCO for an indefinite period of time by entering and exiting Conditions A and B without ever meeting the LCO. The 10-day limit of failure to meet the LCO establishes a maximum time allowed for any combination of Conditions. 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.

L.9 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.1.2 ACTION b. states that with two AFW pumps inoperable, be in HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours. ITS Action C states, in part, that with two

AFW trains inoperable, be in MODE 3 in 6 hours and MODE 4 in 18 hours. This changes the CTS by allowing 18 hours instead of 12 hours to be in MODE 4.

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 allowance to place the plant in MODE 4 in 18 hours allows the unit to reach the required conditions from full power conditions in an orderly manner and without challenging plant systems. The time frame of 18 hours to require the plant to move from 100 % power to MODE 4 is consistent with other CTS and ITS requirements when the heat removal capability of unit is degraded. 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.

UNIT 1

ITS

3.7 PLANT SYSTEMS

3.7.6 EMERGENCY CONDENSATE STORAGE TANK (ECST) A.1

LIMITING CONDITION FOR OPERATION

LCO 3.7.6 3.7.1.3 The emergency condensate storage tank (ECST) shall be OPERABLE with a minimum contained volume of 110,000 gallons of water. A.3

APPLICABILITY: MODES 1, 2 and 3. moved to SR
MODE 4 when steam generator is relied upon for heat removal M.1

ACTION: A.2
Verify by ADMINISTRATIVE MEANS and every 12 hours thereafter either

Action A.1 With the condensate storage tank inoperable, within 4 hours

a. Restore the ECST to OPERABLE status or be in HOT SHUTDOWN A.2

A.2 b. Demonstrate the OPERABILITY of a 300,000 gallon condensate storage tank as a backup supply to the auxiliary feedwater pumps and restore the emergency condensate storage tank to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours. LA.1

Action A.2 / Action B

MODE 3 within 6 hours and M.2

24 L.1

M.1 Without reliance on steam generator for heat removal

SURVEILLANCE REQUIREMENTS

SR 3.7.6.1 4.7.1.3.1 The emergency condensate storage tank ≥ 110,000 gallons shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits when the tank is the supply source for the auxiliary feedwater pumps. A.3

Action A.1 4.7.1.3.2 The condensate storage tank shall be demonstrated OPERABLE at least once per 12 hours by verifying that the water level in the condensate storage tank is sufficient to repenish the ECST to 110,000 gallon whenever the condensate storage tank is the supply source for the auxiliary feedwater pumps. A.2

UNIT 2

ITS

3.7 PLANT SYSTEMS

3.7.6 EMERGENCY CONDENSATE STORAGE TANK (ECST) A.1

LIMITING CONDITION FOR OPERATION

LCO 3.7.6 3.7.1.3 The emergency condensate storage tank (ECST) shall be OPERABLE with contained water volume of at least 110,000 gallons of water moved to SR A.3

APPLICABILITY: MODES 1, 2 and 3. MODE 4 when steam generator is relied upon for heat removal M.1

ACTION:

Action A.1 With the condensate storage tank inoperable, within 4 hours either: Verify by ADMINISTRATIVE means and every 12 hours thereafter A.2

a. Restore the ECST to OPERABLE status or be in HOT SHUTDOWN within the next 12 hours, or A.2

Action A.2 b. Demonstrate the OPERABILITY of a 300,000 gallon condensate storage tank as a backup supply to the auxiliary feedwater pumps LA.1 and restore the emergency condensate storage tank to OPERABLE status within 7 days or be in HOT SHUTDOWN within the next 12 hours. 24 L.1

Action B MODE 3 within 6 hours and without reliance on steam generator for heat removal M.1

M.2

SURVEILLANCE REQUIREMENTS

SR 3.7.6.1 4.7.1.3.1 The emergency condensate storage tank shall be demonstrated OPER at least once per 12 hours by verifying the contained water volume is within its limits when the tank is the supply source for the auxiliary feedwater pumps. >110,000 gallons A.3

Action A.1 4.7.1.3.2 The condensate storage tank shall be demonstrated OPERABLE at le once per 12 hours by verifying that the water level in the condensate storag tank is sufficient to replenish the ECST to 110,000 gallon whenever the con- densate storage tank is the supply source for the auxiliary feedwater pumps. A.2

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 3.7.1.3 ACTIONS require if the condensate storage tank (CST) becomes inoperable, within four hours restore the Emergency Condensate Storage Tank (ECST) is restored to OPERABLE status or be in HOT SHUTDOWN within the next twelve hours. The OPERABILITY of the CST to act as a backup water supply to the AFW pumps must be demonstrated if the ECST is not returned to OPERABLE status within four hours. The ECST must be restored to OPERABLE status within seven days or the plant must be placed in HOT SHUTDOWN within the next twelve hours. In addition to these requirements, CTS surveillance 4.7.1.3.2 states the CST shall be demonstrated OPERABLE at least once per twelve hours. This requirement is accomplished by verifying the water level in the CST is sufficient to replenish the ECST to 110,000 gallons whenever the CST is the supply source for the AFW pumps. ITS 3.7.6 ACTION A requires, if the ECST is inoperable, a verification by administrative means of the OPERABILITY of the CST within four hours and once per twelve hours thereafter. Additionally, the ECST is required to be returned to OPERABLE within the next seven days. This change maintains the CTS requirements in the ITS format.

The change is acceptable because the ITS maintains the technical requirements of the CTS ACTIONS and Surveillance. ITS ACTION A.1 and CTS ACTION b. and CTS Surveillance 4.7.1.3.2 require the verification of the CST to act as a backup to the ECST. The verification will be performed within four hours of the inoperability of the ECST and every twelve hours thereafter. ITS ACTION A.2 and CTS ACTION b. require the restoration of the ECST to OPERABLE status within seven days. The change is designated as administrative because all technical requirements of the CTS are maintained within the ITS requirements.

A.3 CTS 3.7.1.3 states "The emergency condensate storage tank, (ECST) shall be OPERABLE with a minimum contained volume of 110,000 gallons of water." ITS LCO 3.7.6 states, "The ECST shall be OPERABLE" and SR 3.7.6.1 states, "Verify the ECST contains $\geq$ 110,000 gal." This changes the CTS by moving the required volume of water in the ECST from the LCO to the Surveillance.

This change is acceptable because the requirements have not changed. ITS SR 3.0.1 states that failure to meet an SR is failure to meet the LCO. Therefore, moving the

required volume from the LCO to the SR has no effect. This change is designated administrative because it does not result in a technical change to the specifications.

MORE RESTRICTIVE CHANGES

M.1 The CTS requirements on the ECST are applicable in MODES 1, 2, and 3. ITS 3.7.6 is applicable in MODES 1, 2, and 3, and in addition, MODE 4 when a SG is relied upon for heat removal. Consistent with this change in applicability, the phrase "Be in MODE 4, without reliance on steam generator for heat removal" is added to ITS ACTION B. This changes the CTS requirements by requiring the ECST to be OPERABLE in MODE 4 when a SG is relied upon for heat removal.

These changes are acceptable because the required SG(s) must have a sufficient source of makeup water to be considered OPERABLE for heat removal. This assumes that the SG inventory is being expended through the SG Power Operated Relief Valve and the ECST will be used to replenish the water vented to the atmosphere. The change is designated more restrictive because the ECST is now required to be OPERABLE in MODE 4.

M.2 CTS ACTION b requires the plant must be in HOT SHUTDOWN within the next twelve hours if the ECST is inoperable for seven days. ITS Action B states "Required Action and associated Completion Time not met, be in MODE 3 within six hours and MODE 4 within 24 hours." This changes the CTS to require the plant to be in MODE 3 within six hours. The change in the time to reach MODE 4 is discussed in DOC L.1.

This change is acceptable because operating experience has shown that six hours is sufficient to move the plant from full power conditions to MODE 3 without challenging plant systems. The time requirement to reach MODE 3 is consistent with the current requirement of LCO 3.0.3 to move the plant from 100% power to MODE 3 in six hours. The change is designated as a more restrictive change because the CTS does not currently require the plant be placed in MODE 3 within six hours..

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS ACTION b states the Condensate Storage Tank (CST) acts as a backup supply to the AFW pumps with a capacity of 300,000 gallons. ITS 3.7.6 requires the CST to be OPERABLE when the Emergency Condensate Storage Tank

(ECST) is inoperable. This changes the CTS by deletion of specific tank capacity and restates the functional requirements.

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 for the CTS to be OPERABLE when being used as the backup water supply to the AFW and moves the capacity of the CST to the ITS Bases. 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.

LESS RESTRICTIVE CHANGES

L.1 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.1.2, Action b. states that if an inoperable ECST is not restored to OPERABLE status within 7 days, the plant must be in HOT SHUTDOWN within 24 hours. ITS 3.7.6, Action B, states that if an inoperable ECST is not restored to OPERABLE status within 7 days, the plant must be in MODE 3 within 6 hours and MODE 4 without reliance on the steam generators for heat removal within 24 hours. This changes the time to be in MODE 4 without reliance on the steam generators for heat removal from 12 hours to 24 hours. The addition of the MODE 3 Completion Time is discussed in DOC M.2. The addition of the condition to be in MODE 4 without reliance on the steam generators for heat removal is discussed in DOC M.1.

The purpose of ITS 3.7.3, ACTION B, is to place the unit in a condition in which it does not rely on the steam generators for heat removal when the ECST is inoperable. 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. Allowing 24 hours to be in MODE 4 without reliance on the steam generators for heat removal is consistent with other Specifications and recognizes that additional time is required from the time MODE 4 is entered until the steam generators are not relied upon for heat removal. 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.

UNIT 1

ITS 3.7.7

A.1

11-26-77

ITS

3.7

3.7.7.

PLANT SYSTEMS

A.1

ACTIVITY SECONDARY SPECIFIC

LIMITING CONDITION FOR OPERATION

LCO 3.7.7

3.7.1.4 The specific activity of the secondary coolant system shall be ≤0.10 µCi/gram DOSE EQUIVALENT I-131.

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

ACTION:

Action A

With the specific activity of the secondary coolant system > 0.10 µCi/gram DOSE EQUIVALENT I-131, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

SR 3.7.7.1

4.7.1.4 The specific activity of the secondary coolant system shall be determined to be within the limit by performance of the sampling and analysis program of Table 4.7-1.

every 31 days

of ≤ 0.1 µC/gm DOSE EQUIVALENT I-131

L.1

M.1

ITS 3.7.7

(A.1)

11-26-77

ITS

TABLE 4.7-1

SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY
SAMPLE AND ANALYSIS PROGRAM

TYPE OF MEASUREMENT AND ANALYSIS	SAMPLE AND ANALYSIS FREQUENCY	
1. Gross Activity Determination	At least once per 72 hours	(L.1)
2. Isotopic Analysis for DOSE EQUIVALENT I-131 Concentration	a) 1 per 31 days, whenever the gross activity determination indicates iodine concentrations greater than 10% of the allowable limit.	
	b) 1 per 6 months, whenever the gross activity determination indicates iodine concentrations below 10% of the allowable limit.	(M.1)

SR 3.7.7.1

UNIT 2

A.1

ITS 3.7.7

8-21-80

ITS

3.7 PLANT SYSTEMS

3.7.7 ACTIVITY (SECONDARY SPECIFIC) A.1

LIMITING CONDITION FOR OPERATION

LCO 3.7.7

3.7.1.4 The specific activity of the secondary coolant system shall be less than or equal to 0.10 µCi/gram DOSE EQUIVALENT I-131.

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

Action A

ACTION:

With the specific activity of the secondary coolant system greater than 0.10 µCi/gram DOSE EQUIVALENT I-131, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

SR3.7.7.1

4.7.1.4 The specific activity of the secondary coolant system shall be determined to be within the limit by performance of the sampling and analysis program of Table 4.7-1.

every 31 days

of ≤ 0.1 µC/gm DOSE EQUILVALENT I-131 — L.1

M.1

A.1

8-21-80

ITS

TABLE 4.7-1

SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY
SAMPLE AND ANALYSIS PROGRAM

TYPE OF MEASUREMENT AND ANALYSIS		SAMPLE AND ANALYSIS FREQUENCY	
1.	Gross Activity Determination	At least once per 72 hours	L.1
SR 3.7.7.1 2.	Isotopic Analysis for DOSE EQUIVALENT I-131 Concentration	a) 1 per 31 days, whenever the gross activity determination indicates iodine concentrations greater than 10% of the allowable limit.	
		b) 1 per 6 months, whenever the gross activity determination indicates iodine concentrations below 10% of the allowable limit.	M.1

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

M.1 CTS Table 4.7-1 item #2 allows the sampling frequency for the DOSE EQUIVALENT I-131 to be extended to once per 6 months whenever the gross activity determination indicates the iodine concentrations are below 10% of the allowable limits. ITS SR 3.7.7.1 does not provide for this extended time frame for determining the DOSE EQUIVALENT I-131 and requires verification of specific activity of the secondary coolant every 31 days whenever the unit is in MODES 1, 2, 3, and 4. This changes the CTS by deleting CTS Table 4.7-1, item 2.b, and the qualifying statement of, "whenever the gross activity determination indicates iodine concentrations greater than 10% of the allowable limit."

This change is acceptable because the 31 day Frequency is necessary to detect trends in the level of DOSE EQUIVALENT I-131 and allows for appropriate action to be taken to maintain levels below the LCO limit. This change is designated as more restrictive because it requires the DOSE EQUIVALENT I-131 concentration to be determined every 31 days whenever the unit is in MODES 1, 2, 3, and 4 verses allowing a Frequency extension to once every 6 months based on the gross activity determination.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

None

LESS RESTRICTIVE CHANGES

L.1 *(Category 5 – Deletion of Surveillance Requirement)* CTS Table 4.7-1 item #1 requires that the gross activity determination be completed at least once per 72 hours. ITS 3.7.7 does not require any sampling to be performed to determine the gross activity of the secondary coolant. This changes the CTS by deleting the requirement for gross activity determination once per 72 hours.

The purpose of CTS Table 4.7-1, Item #1, is to determine the secondary coolant for gross activity in order to determine the sampling Frequency for secondary coolant DOSE EQUIVALENT I-131. Based on the gross activity the sample Frequency for determining DOSE EQUIVALENT I-131 can be extended to once per 6 months from once per 31 days. This change is acceptable because the deleted Surveillance Requirement is not necessary to verify that the values used to meet the LCO are consistent with the safety analysis. Thus, appropriate values continue to be tested in a manner and at a frequency necessary to give confidence that the assumptions in the safety analysis are protected. ITS SR 3.7.7.1 requires that the DOSE EQUIVALENT I-131 be determined every 31 days without any allowance for an extension of this frequency. The secondary coolant DOSE EQUIVALENT I-131 is used in the accident analyses. The gross activity of the secondary coolant is not used in any accident analysis. This change is designated as less restrictive because Surveillances which are required in the CTS will not be required in the ITS.

UNIT 1

A.1

07-17-97

ITS

3.7.8

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

3/4.7.4.1 SERVICE WATER SYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

3.7.4.1 Two service water loops (shared with Unit 2) shall be OPERABLE with each loop consisting of: A.2 A.4 A.9 LA.1

a. Two OPERABLE service water pumps (excluding auxiliary service water pumps) with their associated normal and emergency power supplies, and

b. An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir.*

APPLICABILITY: Either Unit in MODES 1, 2, 3 or 4. A.2

ACTION:

Action A.1

a. With one service water pump inoperable, within 72 hours throttle component cooling water heat exchanger flows in accordance with approved operating procedures to ensure the remaining service water pumps are capable of providing adequate flow to the recirculation spray heat exchangers. The provisions of Specification 3.0.4 are not applicable once component cooling heat exchangers flows are throttled. L.2 A.3

Action B.1 Action B.2 Action D.1 Action D.2

b. With two service water pumps inoperable, perform ACTION 3.7.4.1.a within 1 hour and restore at least one service water pump to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.1 A.2

Action C.1

c. With one service water loop inoperable, except as provided in ACTION 3.7.4.1.a, be restore the inoperable loop to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.2

Action D.1 Action D.2

throttle component cooling heat exchanger flow A.1

* For the purpose of service water system upgrades associated with the supply and return piping to/from the component cooling water heat exchangers (CCHXs) which includes encased in concrete and exposed piping from the 36" headers to the first isolation valve, one of the two service water (SW) loops is permitted to temporarily bypass the CCHXs, provided all other requirements in this specification are met. This condition is permitted two times only (once for each SW loop) for a duration of up to 35 days each. During each period of operation with only one SW loop available to/from the CCHXs, four out of four SW pumps (excluding the auxiliary SW pumps) shall remain OPERABLE. With one SW pump inoperable, work may continue provided actions are taken to either restore the pump to OPERABLE status within 72 hours or restore both SW headers to/from the CCHXs to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. During each period of operation with only one SW loop available to/from the CCHXs, the automatic closure feature of the SW valves servicing the CCHXs shall be defeated to ensure SW flow to the CCHXs is not interrupted. The automatic closure will not be defeated when the 168-hour Action Statement per Section 3.7.4.1.d is entered during these 35-day periods of operation. During each period of operation with only one SW loop available to/from the CCHXs, the provisions of Specification 3.0.4 are not applicable, provided two SW loops are capable of providing cooling for the other OPERABLE plant components. Upon completion of the work associated with the second 35-day period, this footnote will no longer be applicable. A.4

A.1

10-11-95

PLANT SYSTEMS

ITS

3/4.7.4 SERVICE WATER SYSTEM

3/4.7.4.1 SERVICE WATER SYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

Action C.1 Completion Time Note

d. The allowable time that one of the two service water loops can be inoperable as specified in ACTION 3.7.4.1.c may be extended beyond 72 hours up to 168 hours as part of service water system upgrades* provided 3 out of 4 service water pumps (the third pumps does not require auto start capability) and 2 out of 2 auxiliary service water pumps have been OPERABLE since initial entry into the action statement and remain OPERABLE during the extended action statement or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

LA.5

Action D.1 D.2

e. With two service water loops inoperable for reasons other than described in ACTION 3.7.4.1.b, place both units in HOT SHUTDOWN within 12 hours and within the following hour, initiate actions to place both units in COLD SHUTDOWN and continue actions until both units are in COLD SHUTDOWN.

be

A.2

Actions E.1 E.2

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two service water loops shall be demonstrated OPERABLE:

Insert SR 3.7.8.1 NOTE

A.5

SR 3.7.8.1

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 6 months by measurement of the movement of the pumphouse and wing walls.

LA.2

LA.3

c. At least once per 18 months during shutdown by:

that is not locked, sealed, or otherwise secured in position

L.1

SR 3.7.8.2

1. Verifying that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated safety injection signal.

in the flowpath

A.6

LA.6

2. Verifying that each automatic service water valve actuates to its correct position on an actual or simulated containment high-high signal.

A.7

activation

LA.4

SR 3.7.8.3

d. Each service water pump will be tested in accordance with Specification 4.0.5.

A.8

Insert SR 3.7.8.3

M.1

* Isolation of one service water loop for up to 168 hours is permitted only as part of service water system upgrades. System upgrades include modification and maintenance activities associated with the installation of new discharge headers and spray arrays, mechanical and chemical cleaning of service water piping and valves, pipe repair and replacement, valve repair and replacement, installation of corrosion mitigation measures and inspection of and repairs to buried piping interior coatings and pump or valve house components.

LA.5

UNIT 2

ITS 3.7.8

A.1

07-17-97

PLANT SYSTEMS

ITS

3/4.7.4 SERVICE WATER SYSTEM

3/4.7.4.1 SERVICE WATER SYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

3.7.8

3.7.4.1 Two service water loops (shared with Unit 1) shall be OPERABLE with each loop consisting of: A.2 A.4

a. Two OPERABLE service water pumps (excluding auxiliary service water pumps) with their associated normal and emergency power supplies, and A.9

b. An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir.* LA.1

APPLICABILITY: Either Unit in MODES 1, 2, 3 or 4. A.2

ACTION:

Actron A.1

a. With one service water pump inoperable, within 72 hours throttle component cooling water heat exchanger flows in accordance with approved operating procedures to ensure the remaining service water pumps are capable of providing adequate flow to the recirculation spray heat exchangers. The provisions of Specification 3.0.4 are not applicable once component cooling heat exchangers flows are throttled. L.2 A.3

Actron B.1
Actron B.2
Actron D.1
Actron D.2

b. With two service water pumps inoperable, perform ACTION 3.7.4.1.a within 1 hour and restore at least one service water pump to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. A.1 A.2 be

Actron C.1
Actron D.1
Actron D.2

c. With one service water loop inoperable, except as provided in ACTION 3.7.4.1.a, restore the inoperable loop to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

throttle component cooling heat exchanger flow A.1

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* For the purpose of service water system upgrades associated with the supply and return piping to/from the component cooling water heat exchangers (CCHXs) which includes encased in concrete and exposed piping from the 36" headers to the first isolation valve, one of the two service water (SW) loops is permitted to temporarily bypass the CCHXs, provided all other requirements in this specification are met. This condition is permitted two times only (once for each SW loop) for a duration of up to 35 days each. During each period of operation with only one SW loop available to/from the CCHXs, four out of four SW pumps (excluding the auxiliary SW pumps) shall remain OPERABLE. With one SW pump inoperable, work may continue provided actions are taken to either restore the pump to OPERABLE status within 72 hours or restore both SW headers to/from the CCHXs to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. During each period of operation with only one SW loop available to/from the CCHXs, the automatic closure feature of the SW valves servicing the CCHXs shall be defeated to ensure SW flow to the CCHXs is not interrupted. The automatic closure will not be defeated when the 168-hour Action Statement per Section 3.7.4.1.d is entered during these 35-day periods of operation. During each period of operation with only one SW loop available to/from the CCHXs, the provisions of Specification 3.0.4 are not applicable, provided two SW loops are capable of providing cooling for the other OPERABLE plant components. Upon completion of the work associated with the second 35-day period, this footnote will no longer be applicable. A.4

A.1

10-11-95

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

ITS 3/4.7.4.1 SERVICE WATER SYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

Action C.1 Completion Time Note

d. The allowable time that one of the two service water loops can be inoperable as specified in ACTION 3.7.4.1 c may be extended beyond 72 hours up to 168 hours as part of service water system upgrades* provided 3 out of 4 service water pumps (the third pump does not require auto start capability) and 2 out of 2 auxiliary service water pumps have been OPERABLE since initial entry into the action statement and remain OPERABLE during the extended action statement or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

LA.5

Action D.1 D.2

Actions E.1 E.2

e. With two service water loops inoperable for reasons other than described in ACTION 3.7.4.1.b, place both units in HOT SHUTDOWN within 12 hours and within the following hour, initiate actions to place both units in COLD SHUTDOWN and continue actions until both units are in COLD SHUTDOWN.

be

A.2

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two service water loops shall be demonstrated OPERABLE:

← Insert SR 3.7.8.1 NOTE

A.5

SR 3.7.8.1

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 6 months by measurement of the movement of the pumphouse and wing walls.

LA.2

LA.3

c. At least once per 18 months during shutdown by: that is not locked, sealed, or otherwise secured in position

L.1

SR 3.7.8.2

1. Verifying that each automatic valve servicing safety related equipment in the flowpath actuates to its correct position on an actual or simulated safety injection signal.

A.6

LA.6

2. Verifying that each automatic service water valve actuates to its correct position on an actual or simulated containment high-high signal. actuation

A.7

LA.4

SR 3.7.8.3

d. Each service water pump will be tested in accordance with Specification 4.0.5.

A.8

← Insert SR 3.7.8.3

M.1

* Isolation of one service water loop for up to 168 hours is permitted only as part of service water system upgrades. System upgrades include modification and maintenance activities associated with the installation of new discharge headers and spray arrays, mechanical and chemical cleaning of service water piping and valves, pipe repair and replacement, valve repair and replacement, installation of corrosion mitigation measures and inspection of and repairs to buried piping interior coatings and pump or valve house components.

LA.5

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 3.7.4.1 states, "Two service water loops (shared with Unit 2) shall be OPERABLE..." CTS 3.7.4.1 Applicability states, "Either Unit in MODES 1, 2, 3 or 4." CTS 3.7.4.1 Actions b, c, and e contain requirements to place both units in HOT STANDBY. ITS 3.7.8 does not contain references to both units. This changes CTS by deleting references to both units, and writing the requirements to apply to an individual unit in the Technical Specification.

The purpose of CTS 3.7.4.1 regarding references to both units is to make it clear that OPERABILITY of the SW System affects both units. This change is acceptable because both units are required to follow the Technical Specifications for their respective unit, and the SW System is a shared system. If a SW component is inoperable, both units enter the CONDITIONS applicable to their respective status. Therefore, eliminating the cross-unit references is an editorial change. This change is designated as administrative because it does not result in technical changes to the CTS.

A.3 CTS 3.7.4.1 ACTION a states, The provisions of Specification 3.0.4 are not applicable once component cooling heat exchanger flows are throttled." ITS 3.7.8 does not contain this exemption. This changes CTS by deleting a specific exemption to CTS 3.0.4.

The purpose of the CTS 3.0.4 exemption is to provide an allowance to change MODES once the SW flow to the component cooling water (CC) heat exchangers has been throttled. This change is acceptable because ITS 3.0.4 allows MODE changes while in CONDITIONS that permit continued operation for an unlimited period of time. CTS 3.7.4.1 ACTION a requires throttling of the SW flow to the CC heat exchanger within 72 hours and then permits continued operation for an unlimited period of time. ITS 3.7.8 ACTION retains this REQUIRED ACTION and COMPLETION TIME. This change is designated as administrative because it does not result in technical changes to the CTS.

A.4 CTS 3.7.4.1 includes a footnote, designated "*", which allowed a temporary exemption from the SW System LCO to allow system upgrades to be completed. ITS

3.7.8 does not contain the temporary exemption. This changes CTS by deleting a temporary exemption from CTS requirements.

The purpose of the temporary exemption was to allow system upgrades to be completed. This change is acceptable because the temporary exemption will no longer be valid at the time of ITS implementation. This change is designated as administrative because it does not result in technical changes to the CTS.

A.5 CTS 3.7.4.1 does not contain an explicit reference to isolating SW flow to individual components. ITS Surveillance 3.7.8.1 contains a Note which states, "Isolation of SW flow to individual components does not render the SW System inoperable." This changes CTS by adding an allowance is not explicitly stated in the CTS.

The purpose of the SW Technical Specification is to provide assurance that service water is available to the appropriate plant components. This change is acceptable because by current use and application of the CTS, isolation of a component supplied with service water does not result in the SW System being considered inoperable, but the respective component may be declared inoperable for its system. This change clarifies this application. This change is designated as administrative because it does not result in technical changes to the CTS.

A.6 CTS 4.7.4.1.c.1 requires verification that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated safety injection signal. ITS SR 3.7.8.2 requires verification that each SW System automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. This changes the CTS by adding the description that the valves must be in the flow path. Other changes are described in L.1, LA.5, LA.6, LA.8, and A.7.

The purpose of CTS 4.7.4.1.c.1 is to provide assurance that required SW valves are in their correct position. This change is acceptable because it clarifies that this requirement applies to valves in the SW flow path. This change is designated as administrative because it does not result in technical changes to the CTS.

A.7 CTS 4.7.4.1.c.1 requires verification that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated safety injection signal. CTS 4.7.4.1.c.2 requires verification that each automatic service water valve actuates to its correct position on an actual or simulated containment high-high signal. ITS SR 3.7.8.2 states, "Verify each SW System automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal." This changes the CTS by combining the requirements for testing the two separate signals into one SR.

The purpose of the CTS 4.7.4.1.c.1 and CTS 4.7.4.1.c.2 is to provide assurance that the required SW automatic valves actuate to their correct position on their respective

actuation signals. ITS SR 3.7.8.2 retains this requirement. This change is designated as administrative because it does not result in technical changes to the CTS.

A.8 CTS 4.7.4.1.d requires each SW pump to be tested in accordance with Specification 4.0.5. ITS 5.5.8, "Inservice Testing Program," provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. ITS 3.7.8 does not contain the specific Surveillance to test each SW pump in accordance with Specification 4.0.5. This changes the CTS by moving a requirement to perform testing in accordance with the Inservice Testing Program from one TS section to another.

The purpose of CTS Specification 4.0.5 is to require inservice testing in accordance with 10 CFR 50.55a. The purpose of inservice testing of the SW pumps is to detect gross degradation caused by impeller structural damage or other hydraulic component problems. This change is acceptable because the SW pumps are still required to be tested in accordance the Inservice Testing Program in ITS Section 5.5. This change is designated as administrative because it does not result in technical changes to the CTS.

A.9 CTS 3.7.4.1.a requires that each required service water loop include two OPERABLE service water pumps with their associated normal and emergency power supplies. CTS 1.18, the definition of OPERABLE-OPERABILITY, requires that for component OPERABILITY, normal and emergency power sources are capable of performing their related support function. ITS 3.7.8 does not contain power source requirements for the service water pumps. This changes CTS by addressing service water pump power source requirements through the definition of OPERABLE-OPERABILITY and through ITS 3.8.1, without specifically addressing power source requirements in CTS 3.7.4.1.

This change is acceptable because the power source requirements for component OPERABILITY already exist as part of the CTS definition of OPERABILITY. Changes to the definition of OPERABILITY are discussed in ITS 1.0. Power supply requirements for service water pumps are also addressed as part of ITS 3.8.1. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 4.7.4.1 does not contain a requirement to verify each SW System pump starts automatically on an actuation signal. ITS 3.7.8.3 states, "Verify each SW pump starts automatically on an actual or simulated actuation signal." This changes the CTS by adding a SR to test the SW Systems pumps.

This change is acceptable because in order for the SW System to perform the safety function assumed in the accident analysis, the SW pumps must start automatically. This Surveillance is similar to the testing requirements on other safety system pumps. This change is designated as more restrictive because it adds a SR.

RELOCATED SPECIFICATIONS

None

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 3.7.4.1 states that two service water loops shall be OPERABLE and contains a description of what constitutes an OPERABLE loop. ITS 3.7.8 requires two service water (SW) System loops to be OPERABLE, but does not contain these details. This changes the CTS by moving the detail of what constitutes OPERABLE SW System loops 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 for two SW System loops to be 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 removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS Surveillance 4.7.4.1.b requires the measurement of any movement of the SW pumphouse and wing walls every 6 months. ITS 3.7.8 does not contain this requirement. This changes the CTS by moving the requirement to measure the movement of the pumphouse and wing walls to the Technical Requirements Manual (TRM).

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 SRs to demonstrate OPERABILITY of the SW loops. The measurement of the SW pumphouse and wing walls movement is part of a long term monitoring program. There are no acceptance limits for movement and no requirements for action based on the measurement. Also, this change is acceptable because these types of procedural details will be adequately controlled in the TRM. 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 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.7.4.1.c requires verification of the automatic actuation of SW System valves every 18 months during shutdown. ITS SR 3.7.8.2 requires verification of the automatic actuation of SW System valves every 18 months, but not the requirement that this testing be performed during shutdown. This changes the CTS by moving the reference to performing the SR when the plant is shutdown 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 test every 18 months, a FREQUENCY established to allow the SR to be performed when the unit is shutdown, as described in the Bases. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. 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.4 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.7.4.1.c.1 requires verification that each automatic valve actuates to its correct position on an actual or simulated safety injection signal. CTS 4.7.4.1.c.2 requires verification that each automatic valve actuates to its correct position on an actual or simulated containment high-high signal. ITS SR 3.7.8.2 requires verification that each automatic valve actuates to its correct position on an actual or simulated actuation signal. This changes the CTS by moving the name of the actuation signals 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 verify each SW System valve actuates to the correct position on an actuation signal. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. 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.5 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 3.7.4.1 ACTION d contains a reference to a footnote which describes those activities that are considered service water system upgrades. ITS 3.7.8 does not contain the information in the footnote. This changes the CTS by

moving the description of what constitutes service water system upgrades 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 a NOTE allowing a COMPLETION TIME of 7 days as part of service water system upgrades when one SW System loop is inoperable. The description of system upgrades is moved to the Bases. 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 removal of detail change because information relating to system design is being removed from the Technical Specifications.

LA.6 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* CTS 4.7.4.1.c.1 requires that each valve servicing safety related equipment actuate to its correct position on an actual or simulated signal. ITS SR 3.7.8.2 does not reference the servicing of safety related equipment. This changes CTS by moving the reference to safety related equipment 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 verify the referenced valves actuate to their correct position on an actual or simulated signal, but the description of whether the valves service safety related equipment is moved to the Bases. 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 removal of detail change because information relating to system design is being removed from the Technical Specifications.

LESS RESTRICTIVE CHANGES

L.1 *(Category 5 – Deletion of Surveillance Requirement)* CTS 4.7.4.1.c.1 and 4.7.4.1.c.2 require verification that SW System automatic valves actuate to their correct position. ITS SR 3.7.8.2 requires verification that SW System automatic valves in the flow path that are not locked, sealed or otherwise secured in position, actuate to the correct position on an actual or simulated actuation signal. This changes the CTS by exempting valves that are locked, sealed, or otherwise secured in position from the verification.

The purpose of CTS 4.7.4.1.c.1 and 4.7.4.1.c.2 is to provide assurance that if an event occurred requiring the SW System valves to be in their correct position, that those requiring automatic actuation would actuate to their correct position. This change is

acceptable because the deleted Surveillance Requirement is not necessary to verify that the equipment used to meet the LCO can perform its required functions. Thus, appropriate equipment continues to be tested in a manner and at a frequency necessary to give confidence that the equipment can perform its assumed safety function. The change exempts valves that have already been placed in the correct position and are locked, sealed, or otherwise secured in position. Those automatic SW System valves that are locked, sealed, or otherwise secured in position are not required to actuate in order to perform their safety function because they are already in the required position. This change is designated as less restrictive because Surveillances which are required in the CTS will not be required in the ITS.

L.2 *(Category 4 – Relaxation of Required Action)* CTS 3.7.4.1 Action a states that when one service water pump is inoperable, the SW flow to the CC heat exchangers must be throttled in accordance with approved operating procedures to ensure the remaining service water pumps are capable of providing adequate flow to the RS heat exchangers. ITS 3.7.8 Actions A.1 and B.1 require throttling of the SW flow to the CC heat exchangers to obtain the required RS heat exchanger flow. This changes the CTS by deleting the requirement that the throttling be performed using approved operating procedures.

The purpose of CTS 3.7.4.1 Action a is to provide assurance that component cooling heat exchanger flow are throttled within 72 hours of a SW pump inoperability so that the SW System is available when needed. 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 removes a reference to operating the plant in accordance with approved operating procedures. This change is acceptable because the plant approves and controls its own operating procedures, and they are not controlled by the Technical Specifications. Therefore, this reference is unnecessary as it implies itself that the procedures referenced are not controlled by the Technical Specifications. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

UNIT 1

ITS 3.7.9

4-1-78

A.1

ITS

PLANT SYSTEMS

3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.9

3.7.5.1 The ultimate heat sinks shall be OPERABLE:

a. Service Water Reservoir with:

verify

SR 3.7.9.1

1. A minimum water level at or above elevation 313 Mean Sea Level, USGS datum, and

SR 3.7.9.2

2. An average water temperature of ≤ 95°F as measured at the service water pump outlet.

A.2

LA.2

b. The North Anna Reservoir with:

1. A minimum water level at or above elevation 244 Mean Sea Level, USGS datum, and

2. An average water temperature of ≤ 95°F as measured at the condenser inlet.

See CTS 3.7.5.1

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A

With the requirements of the above specification not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHTUDOWN within the following 30 hours.

SURVEILLANCE REQUIRMENTS

SR 3.7.9.1
SR 3.7.9.2

4.7.5.1 The ultimate heat sinks shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits.

A.2

4.7.5.2 Data for calculating the leakage from the service water reservoir shall be obtained and recorded at least once per 6 months.

LA.1

UNIT 2

ITS 3.7.9

A.1

8-21-80

PLANT SYSTEMS

3/4.7.5 ULTIMATE HEAT SINK

ITS

LIMITING CONDITION FOR OPERATION

3.7.9 3.7.5.1 The ultimate heat sinks shall be OPERABLE:

a. Service Water Reservoir with:

SR 3.7.9.1 (verify)

1. A minimum water level at or above elevation 313 Mean Sea Level, USGS datum, and (LA.2)

SR 3.7.9.2

2. An average water temperature of less than or equal to 95°F as measured at the service water pump outlet.

(A.2)

b. The North Anna Reservoir with:

1. A minimum water level at or above elevation 244 Mean Sea Level, USGS datum, and

2. An average water temperature of less than or equal to 95°F as measured at the condenser inlet.

See CTS 3.7.5.1

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Action A With the requirements of the above specification not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

SR 3.7.9.1 SR 3.7.9.2 4.7.5.1 The ultimate heat sinks shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits. (A.2)

4.7.5.2 Data for calculating the leakage from the service water reservoir shall be obtained and recorded at least once per 6 months. (LA.1)

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 3.7.5.1 states that the ultimate heat sinks shall be OPERABLE and describes the Service Water Reservoir parameters that must be met. ITS LCO 3.7.9 states the UHS shall be OPERABLE, and ITS SR 3.7.9.1 and SR 3.7.9.2 contain the parameter values for the Service Water Reservoir that must be met. This changes the CTS by moving the Service Water Reservoir parameter requirements to the SRs.

The purpose of CTS 3.7.5.1 is to provide assurance that the water in the UHS can provide required cooling in case of an event. This change is acceptable because the parameter requirements for the UHS are retained, but are moved from the LCO to the SRs. These changes are designated as administrative 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 4.7.5.2 states data for calculating the leakage from the Service Water Reservoir shall be obtained and recorded at least once per 6 months. ITS 3.7.9 does not contain this requirement. This changes the CTS by moving the requirement to the Technical Requirements Manual (TRM).

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 verification

requirements for UHS parameters, which determine OPERABILITY of the UHSs. The purpose of the SR being moved to the TRM is to monitor long-term performance of the Service Water Reservoir dike. Also, this change is acceptable because these types of procedural details will be adequately controlled in TRM. 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 3.7.5.1 requires that minimum water level for the ultimate heat sinks be measured to USGS datum, and average water temperature of the Service Water Reservoir be measured at the SW pump outlet. ITS SR 3.7.9.1 and SR 3.7.9.2 require verification of the parameters. This changes the CTS by not specifying the datum for mean sea level, or where the average Service Water Reservoir water temperature is measured.

The removal of these details 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 verify the respective parameters are within limits. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases. 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

None

UNIT 1

A.1

PLANT SYSTEMS

ITS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

3.7.10

LIMITING CONDITION FOR OPERATION

3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

Two trains of

a. The emergency ventilation system. b. One MCR/ESGR train on the other unit

b. The bottled air pressurization system.

c. Two air conditioning systems.

M.1

<See ITS 3.7.13>

<See ITS 3.7.11>

APPLICABILITY: MODES 1, 2, 3 and 4.

INSERT NOTE

L.5

ACTION:

One required train of

M.2

Actron A.1

a. With either the emergency ventilation system or the bottled air presurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.13>

L.4

Actron C.1
Actron C.2

two or more required trains

b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.13>

M.2

Actron B.1
Actron C.1
Actron C.2

two required trains

10

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY wtihin the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.11>

Actron B.1

due to inoperable MCR/ESGR boundary, restore MCR/ESGR boundary to OPERABLE status, or

M.3

INSERT PROPOSED CONDITION D

M.4

ITS

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

SR 3.7.10.1

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

L.1 LA.1 A.2

INSERT PROPOSED SR 3.7.10.2

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm ± 10% (except as shown in Specifications 4.7.7.1e. and f.).

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

See ITS 5.0

3. Verifying a system flow rate of 1000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

SR 3.7.10.3
SR 3.7.10.4

d. At least once per 18 months by:

1. Verifying that the pressure drop across the demister filter, HEPA filter and charcoal adsorber is < 4 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm ± 10%.

See ITS 5.0

ITS

PLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

each LCO 3.7.10.a MCR/ESGR EVS train actuates

M.5

SR 3.7.10.3

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal. on an actual or simulated actuation

LA.2

L.2

L.3

SR 3.7.10.4

every 18 months on a STAGGERED TEST BASIS

3. Verifying that the system maintains the control room at a positive pressure of ≥ 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%. each required train adjacent areas

M.7 M.6

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

See ITS 5.0

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove ≥ 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 2) each pressurized to at least 2300 psig.

b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of ≥ 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes.

See ITS 3.7.13

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is ≤ 120°F.

See ITS 3.7.11

UNIT 2

A.1

PLANT SYSTEMS

ITS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.10

3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

Two trains of

a. The emergency ventilation system,

b. One MCR/ESGR train on the other unit

M.1

b. The bottled air pressurization system*, and

c. Two air conditioning systems.

<See ITS 3.7.13>

<See ITS 3.7.11>

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

INSERT NOTE

L.5

M.2

one required train of

Action A.1 a. With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.13>

L.4

Action C.1
Action C.2

two or more required trains of

Action B.1 b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.13>

M.2

two required trains

Action C.1
Action C.2

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.11>

*Shared with Unit 1

Action B.1 due to inoperable MCR/ESGR boundary, restore MCR/ESGR boundary to OPERABLE status, or

<See ITS 3.7.13>

M.3

INSERT PROPOSED CONDITION

M.4

PLANT SYSTEMS

ITS

SURVEILLANCE REQUIREMENTS

SR 3.7.10.1

4.7.7.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

L.1 LA.1 A.2

a. At least once per 31 days ~~on a STAGGERED TEST BASIS~~ by initiating, ~~from the control room,~~ flow through ~~the~~ HEPA filters and ~~charcoal~~ adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

INSERT PROPOSED SR 3.7.10.2

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm ± 10% (except as shown in Specifications 4.7.7.1e. and f.).

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

3. Verifying a system flow rate of 1000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

See ITS S.0

SR 3.7.10.3
SR 3.7.10.4

d. At least once per 18 months by:

1. Verifying that the pressure drop across the demister filter, HEPA filter and charcoal adsorber assembly is < 4 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm ± 10%.

See ITS S.0

A.1

PLANT SYSTEMS

ITS

SURVEILLANCE REQUIREMENTS (Continued)

each LCO 3.7.10.a MCR/ESGR EVS train actuates

M.5

SR 3.7.10.3 SR 3.7.10.4 every 18 months on a STAGGERED TEST BASIS

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal. on an actual or simulated actuation

LA.2 L.2 L.3

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%. adjacent areas

M.7 M.6

each required train

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove greater than or equal to 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

See ITS 5.0

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 1) each pressurized to at least 2300 psig.

b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of greater than or equal to 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes.

See ITS 3.7.13

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F

See ITS 3.7.11

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 ITS SR 3.7.10.2 requires performing required MCR/ESGR EVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP). CTS 4.7.7.1 does not include a VFTP, but the requirements that make up the VFTP are being moved to ITS 5.0. This changes CTS by requiring testing in accordance with the VFTP, whose requirements are being moved to ITS 5.0.

This change is acceptable because filter testing requirements are being moved to the VFTP as part of ITS 5.0, and ITS SR 3.7.10.2 references the VFTP for performing these tests. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS 3.7.7.1 requires the emergency ventilation system to be OPERABLE. ITS 3.7.10 states, "The following MCR/ESGR EVS trains shall be OPERABLE: a. Two MCR/ESGR Emergency Ventilation System (EVS) trains; and b. One MCR/ESGR EVS train on the other unit." This changes CTS by specifying the number and type of MCR/ESGR EVS trains required to be OPERABLE.

The purpose of CTS 3.7.7.1 is to provide assurance that the equipment necessary to maintain MCR/ESGR habitability is OPERABLE. This change is acceptable because it clarifies what is required of the systems by the safety analysis and plant design. These requirements were not explicitly stated in the CTS. This change is designated as more restrictive because it is more specific regarding what system components are required to be OPERABLE.

M.2 CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." ITS 3.7.10 Condition A states, "One required LCO 3.7.10.a or 3.7.10.b MCR/ESGR EVS train inoperable." ITS Required Action A.1 states, "Restore train to OPERABLE status," within 7 days. This changes CTS by allowing only one required train of the MCR/ESGR EVS to be inoperable for 7

days, but not allowing the entire MCR/ESGR EVS to be inoperable for 7 days.

The purpose of CTS 3.7.7.1 Action a. is to allow a reasonable time to respond to the loss of part of the MCR/ESGR EVS. This change is acceptable because it better represents inoperabilities that the MCR/ESGR EVS can sustain and still perform its safety function, while providing reasonable limits on the time that portions of the system are inoperable. This change is designated as more restrictive because it is more specific and limiting on what portions of the MCR/ESGR EVS may be inoperable for 7 days.

M.3 CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems 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." ITS 3.7.10 Required Action B.1 requires that with two or more required LCO 3.7.10.a or LCO 3.7.10.b MCR/ESGR EVS trains inoperable due to an inoperable MSR/ESGR boundary in MODE 1, 2, 3, or 4, restore the MCR/ESGR boundary to OPERABLE status within 24 hours. The Bases for Required Action B.1 state, "During the period that the MCR/ESGR boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition." ITS 3.7.10 Condition C requires that if the Required Actions and associated Completion Time of Condition A or B are not met, the unit be in MODE 3 in 6 hours, and MODE 5 in 36 hours. ITS LCO 3.0.3 allows 7 hours to place the unit in MODE 3, and 37 hours to place the unit in MODE 5. This changes CTS by not providing a Completion time of 24 hours when the two or more required MCR/ESGR EVS trains and two or more required MCR/ESGR bottled air trains are inoperable at the same time, except for an inoperable MCR/ESGR boundary. This also changes CTS by requiring compensatory measures be taken while the MCR/ESGR boundary is inoperable. This results in allowing 23 fewer hours to place the unit in MODE 3 and MODE 5, and requires additional compensatory actions be taken.

The purpose of CTS 3.7.7.1 Action b is to limit the time that the unit is without the ability to maintain the MCR/ESGR envelope air habitable. The change still allows 24 hours to repair the MCR/ESGR boundary. This is reasonable based on the low probability of a DBA occurring during this time period, and the capability of the MCR/ESGR EVS and compensatory actions to provide some degree of protection should an event occur. This change is acceptable because the time during which the system function can not be met because both required MCR/ESGR EVS and MCR/ESGR bottled air system are inoperable should be minimized, and compensatory measures can be taken. This change is designated as a more restrictive change because the Completion Time for performing a Required Action has been reduced, and the requirement is added for compensatory actions when the

MCR/ESGR boundary is inoperable.

M.4 CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." ITS 3.7.10 Required Action D.1 requires that with two or more required LCO 3.7.10.a or LCO 3.7.10.b MCR/ESGR EVS trains inoperable for reasons other than Condition B, enter LCO 3.0.3 immediately. ITS LCO 3.0.3 allows 7 hours to place the unit in MODE 3, and 37 hours to place the unit in MODE 5. This changes CTS by not providing a Completion time of 7 days when the two or more required MCR/ESGR EVS trains are inoperable resulting in less time allowed to place the unit in MODE 3 and MODE 5.

The purpose of CTS 3.7.7.1 Action a is to limit the time that the unit is without the ability to maintain the MCR/ESGR envelope air habitable. This change is acceptable because having two or more required trains of the MCR/ESGR EVS inoperable makes system unable to perform its safety function, and the time during which the system function can not be met should be minimized. This change is designated as more restrictive because the time that a system is allowed to be inoperable before the unit is required to be shutdown is reduced.

M.5 CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.10.3 states, "Verify each LCO 3.7.10.a MCR/ESGR EVS train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes CTS by requiring verification of automatic actuation of each LCO 3.7.10.a MCR/ESGR EVS train on an actual or simulated actuation signal. The change moving details of how the test is performed are addressed in a removed detail discussion of change.

The purpose of CTS 4.7.7.1.d.2 is to verify the MCR/ESGR envelope is automatically isolated from the contaminated environment in case of a DBA. This change is acceptable because the isolation from the environment is part of the activity automatically actuating each LCO 3.7.10.a MCR/ESGR EVS train. Adding the requirement to verify each LCO 3.7.10.a MCR/ESGR EVS train actuates automatically is consistent with intent of testing the automatic actuation of the system. This change is designated as more restrictive because testing of additional portions of the system are specified.

M.6 CTS 4.7.7.1.d.3 uses a reference of "outside atmosphere" with regard to the pressure at which the emergency ventilation system must maintain the control room. ITS SR 3.7.10.4 uses the reference "adjacent areas." This changes the reference used when determining whether the MCR/ESGR envelope has been sufficiently pressurized to a more specific reference.

The purpose of CTS 4.7.7.1.d.3 is to provide assurance that the MCR/ESGR envelope provides adequate protection for the control room operators from radioactive material outside the control room. This change is acceptable because it provides assurance that the pressure measured in the control room is with regard to areas adjacent to the control room, rather than a less specific reference of outside atmosphere, which could be otherwise interpreted. This change is designated as more restrictive because it places more stringent requirements to be demonstrated by Surveillance Requirements.

M.7 CTS 4.7.7.1.d.3 specifies positive pressure and flow requirements that must be met by the control room emergency ventilation system. ITS SR 3.7.10.4 states the positive pressure and flow requirements that must be met by each required train of the MCR/ESGR EVS. This changes the CTS by specifying that the each required train of the MCR/ESGR EVS must be capable of performing the specified Surveillance Requirement.

This change is acceptable because only by testing each of the trains that may be required to perform the safety function assumed in the DBA analysis can there be assurance that the system as a whole will perform as required. This change is designated as more restrictive because it places more stringent requirements to be demonstrated by Surveillance Requirements.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

LA.1 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE: a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on." ITS SR 3.7.10.1 states, "Operate each required MCR/ESGR EVS train for ≥ 10 continuous hours with the heaters operating." The Frequency is every 31 days. This changes the CTS by moving the detail of how the surveillance is conducted to the Bases. The change deleting the STAGGERED TEST BASIS reference is addressed in DOC L.1.

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 periodically operate the MCR/ESGR EVS trains. 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 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.10.3 states, "Verify each LCO 3.7.10.a MCR/ESGR EVS train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes the CTS by moving the detail of what is verified by the Surveillance to the Bases. The change adding the, "actual or simulated actuation," phrase is addressed DOC L.2.

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 periodically verify that the 3.7.10.a MCR/ESGR EVS trains actuate on an actual or simulated actuation signal. 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.

LESS RESTRICTIVE CHANGES

L.1 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE: a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on." ITS SR 3.7.10.1 states, "Operate each required MCR/ESGR EVS train for ≥ 10 continuous hours with the heaters operating." The Frequency is every 31 days. This changes the CTS by removing the STAGGERED TEST BASIS requirement from the 31 day Frequency. The change moving details of the test to the Bases is addressed in a removed detail discussion of change.

The purpose of CTS 4.7.7.1 is to provide a degree of assurance that the required

MCR/ESGR EVS trains will operate properly when required. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. This change still requires the required MCR/ESGR EVS trains to be tested every 31 days, but deletes the requirement they be tested in evenly spaced time intervals during the 31 days. This change is designated as less restrictive because Surveillances will be performed with fewer restrictions on Frequency under the ITS than under the CTS.

L.2 (*Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria*) CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.10.3 states, "Verify each LCO 3.7.10.a MCR/ESGR EVS train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes the CTS by allowing the automatic actuation to be verified by either an actual or simulated actuation signal. The change moving the detail of what is verified by the surveillance and how it is performed to the Bases is addressed in a removed detail discussion of change.

The purpose of CTS 4.7.7.1.d is to ensure that the portions of the MCR/ESGR EVS required to actuate and which receive an actuation signal actuate 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. Equipment can not discriminate between 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.3 *(Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.7.7.1.d.2 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...At least once per 18 months by:...verifying that the system maintains the control room at a positive pressure of $\geq$ 0.04 inch W.G. relative to the outside atmosphere at a system flow rate of 1000 cfm $\pm$ 10%." ITS SR 3.7.10.4 requires the same surveillance be performed every 18 months on a STAGGERED TEST BASIS. This changes the CTS by requiring the surveillance be performed every 18 months on a STAGGERED TEST BASIS instead of every 18 months. The change in the positive pressure required is addressed by DOC M.5.

The purpose of CTS 4.7.7.1.d.3 is to provide assurance that the MCR/ESGR EVS can pressurize the MCR/ESGR envelope sufficiently to meet DBA analyses. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. This change allows one

of the required trains in each respective system to be tested every 18 months, which is consistent with the guidance provided in NUREG-0800. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.4 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems 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." ITS 3.7.10 Condition A states, "One required LCO 3.7.10.a or 3.7.10.b MCR/ESGR EVS train inoperable." ITS Required Action A.1 states, "Restore train to OPERABLE status," within 7 days. ITS 3.7.13, "MCR/ESGR Bottled Air System," has a similar Required Action A.1. This changes the CTS by allowing portions of both the MCR/ESGR bottled air system and the MCR/ESGR EVS to be inoperable for 7 days rather than 24 hours. Changes associated with identifying system train inoperabilities rather than whole systems are addressed by DOC M.2. Changes associated with not allowing both systems to be inoperable for 24 hours are addressed by DOC M.3. Changes associated with the MCR/ESGR bottled air system are addressed in ITS 3.7.13.

The purpose of CTS 3.7.7.1 Action a and Action b is to provide assurance that the MCR/ESGR Emergency Habitability System (EHS) can provide a habitable environment for the operators by limiting the time that redundancy of the MCR/ESGR EHS is not available. 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. This change allows up to 7 days for one train of the MCR/ESGR bottled air system and MCR/ESGR EVS to be inoperable because the EVS can still perform its safety function. CTS 3.7.7.1 Action b only allowed the systems to be inoperable concurrently for 24 hours, though trains were not specified. 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.

L.5 *(Category 1 – Relaxation of LCO Requirements)* The ITS LCO 3.7.10 Note states, "The MCR/ESGR boundary may be opened intermittently under administrative control." This allowance is not explicitly stated in CTS 3.7.7.1. This changes CTS by explicitly allowing the MCR/ESGR boundary to be opened intermittently under administrative control.

The purpose of the ITS LCO 3.7.10 Note is to provide the means by which to exercise an allowance allowed by plant design, such as opening the MCR door for access to

the control room. This change is acceptable because the plant design allows opening of the boundary under administrative controls for purposes such as MCR access. The LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. This change will allow the MCR/ESGR boundary to be opened under administrative controls. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

UNIT 1

ITS

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.11

3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

a. The emergency ventilation system. (See ITS 3.7.10)

b. The bottled air pressurization system. (See ITS 3.7.13)

c. Two air conditioning systems.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION: During movement of recently irradiated fuel assemblies. M.1

a. With either the emergency ventilation system or the bottled air presurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours. (See ITS 3.7.10)

b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours. (See ITS 3.7.13)

Actron A.1
Actron B.1
Actron B.2

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY wtihin the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours. 30 10 L.1

Actron E.1

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours. M.3

Actron C.1
Actron C.2
Actron D.1

enter LCO 3.0.3

INSERT PROPOSED CONDITION C and D M.1

(A.1)

ITS 3.7.11

PLANT SYSTEM

ITS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal.

3. Verifying that the system maintains the control room at a positive pressure of ≥ 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%.

<See ITS 3.7.10>

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove ≥ 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

<See ITS 5.0>

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 2) each pressurized to at least 2300 psig.

b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of ≥ 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes.

<See ITS 3.7.13>

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is ≤ 120°F.

SR 3.7.11.1

INSERT PROPOSED SR 3.7.11.1

(M.2)

UNIT 2

A.1

ITS

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.11 3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

a. The emergency ventilation system,

b. The bottled air pressurization system*, and

c. Two air conditioning systems.

<See ITS 3.7.10>
<See ITS 3.7.13>

During movement of recently irradiated fuel assemblies,

M.1

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.10>
<See ITS 3.7.13>

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

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

L.1

Action E.1

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

M.3

enter LCO 3.0.3

*Shared with Unit 1

<See ITS 3.7.13>

INSERT PROPOSED CONDITION C and D

M.1

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

A.1

PLANT SYSTEMS

ITS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal.

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%.

See ITS 3.7.10

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove greater than or equal to 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

See ITS 5.0

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 1) each pressurized to at least 2300 psig.

b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of greater than or equal to 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes.

See ITS 3.7.13

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F.

INSERT PROPOSED SR 3.7.11.1

SR 3.7.11.1

M.2

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

M.1 ITS 3.7.11 Applicability includes, "During movement of recently irradiated fuel assemblies." ITS 3.7.11 Condition C is entered when the Required Action and associated Completion Time of Condition A is not met during movement of recently irradiated fuel assemblies. The Required Actions require either placing an OPERABLE MCR/ESGR ACS subsystem in operation or suspending movement of recently irradiated fuel assemblies. Condition D is entered when two MCR/ESGR ACS trains are inoperable during movement of recently irradiated fuel assemblies. Required Action D.1 requires suspending movement of recently irradiated fuel assemblies immediately. This changes CTS by adding an additional Applicability criteria and associated Conditions and Required Actions.

The purpose of ITS 3.7.11 is to provide assurance that the MCR/ESGR ACS is OPERABLE when required to perform its function. The system is required during movement of recently irradiated fuel assemblies. This change is acceptable because it provides this Applicability with associated Conditions and Required Actions to provide additional assurance that the MCR/ESGR ACS is available to perform its function when required. This change is designated more restrictive because it adds an Applicability with associated Conditions and Required Actions.

M.2 CTS 4.7.7.3 states, "Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F." ITS SR 3.7.11.1 states, "Verify each MCR/ESGR ACS chiller has the capability to remove the design heat load." The Frequency is every 18 months. This changes CTS by replacing a temperature verification with a test to verify each MCR/ESGR ACS chiller has the capability to remove the design heat load.

The purpose of ITS SR 3.7.11.1 is provide assurance that each MCR/ESGR ACS subsystem has the capability to remove the design heat load in case of a DBA. This change is acceptable because it provides a better measure of whether the MCR/ESGR ACS subsystem can perform its safety function. This change is designated as a more

restrictive change because CTS 4.7.7.3 is replaced with a more comprehensive Surveillance Requirement.

M.3 CTS 3.7.7.1 Action d states, "With both the air conditioning systems inoperable, restore at least one system 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." ITS 3.7.11 Condition E requires that with two air conditioning systems inoperable in MODE 1, 2, 3, or 4, enter LCO 3.0.3 immediately. ITS LCO 3.0.3 allows 7 hours to place the unit in MODE 3, and 37 hours to place the unit in MODE 5. This changes CTS by allowing 23 hours less to place the unit in MODE 3 and MODE 5 with two air conditioning systems inoperable. The change in the criteria for the systems is addressed in another more restrictive discussion of change.

The purpose of CTS 3.7.7.1 Action d is to limit the time that the unit is without the ability to maintain the MCR/ESGR temperature within limits. This change is acceptable because it limits the time the air conditioning system is unable to fulfill its safety function, and the time during which the system function can not be met should be minimized. This change is designated as a more restrictive change because the Completion Time for performing a Required Action has been reduced.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

None

LESS RESTRICTIVE CHANGES

L.1 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.7.1 Action c allows 7 days to restore an inoperable air conditioning subsystem to OPERABLE status. ITS 3.7.11 allows 30 days to restore an inoperable air conditioning subsystem to OPERABLE status. This changes the CTS by increasing the time allowed to restore the inoperable components from 7 days to 30 days.

The purpose of ITS 3.7.11 is to provide a degree of assurance that the MCR/ESGR ACS can provide cooling when required. 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 MCR/ESGR ACS is still required to be restored to OPERABLE status, and can perform its function without one air conditioning subsystem. 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.

UNIT 1

A.1

ITS 3.7.12

12-28-79

ITS

3.7.12

PLANT SYSTEMS

3/4.7.8 SAFEGUARDS AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

ECCS Pump Rooms Exhaust Air Cleanup System (PREACS) trains

M.1

3.7.8.1 Two safeguards area ventilation systems (SAVS) shall be OPERABLE with:

a. one SAVS exhaust fan

b. one auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 2)

LA.1

APPLICABILITY: MODES 1, 2, 3 and 4.

INSERT PROPOSED LCO NOTE

M.2

ACTION:

ECCS PREACS train

M.1

With one SAVS inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Actron A.1
Actron C.1
Actron C.2
Actron B.1

SURVEILLANCE REQUIREMENTS

INSERT PROPOSED REQUIRED ACTION B.1

M.2

4.7.8.1 Each SAVS system shall be demonstrated OPERABLE:

ECCS PREACS train

M.1

a. At least once per 31 days on a STAGGERED TEST BASIS by:

L.1

1. Initiating, from the control room, flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the SAVS operates for at least 10 hours with the heater on.

LA.2

SR 3.7.12.2
SR 3.7.12.1

INSERT PROPOSED SR 3.7.12.3

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system, by:

A.2

See ITS 5.0

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 6,300 cfm ± 10% (except as shown in Specifications 4.7.8.1e. and f.).

10

Rev 0

PLANT SYSTEMS

ITS

SURVEILLANCE REQUIREMENTS (Cont'd)

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 95%.

3. Verifying a system flow rate of 6,300 cfm ± 10% during operation when tested in accordance with ANSI N510-1975.

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 95%.

See ITS 5.0

d. At least once per 18 months by:

1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is < 6 inches Water Gauge while operating the ventilation system at a flow rate of 6,300 cfm ± 10%.

See ITS 5.0

SR 3.7.12.4

actual or simulated

2. Verifying that on a ~~Containment Hi-Hi Test~~ Signal, the system automatically diverts its exhaust flow ~~through~~ the auxiliary building HEPA ~~filter~~ and charcoal adsorber assembly.

L.2

L.A.3

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove ≥ 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm ± 10%.

See ITS 5.0

INSERT PROPOSED SR 3.7.12.5

M.2

UNIT 2

ITS

PLANT SYSTEMS

3/4.7.8 SAFEGUARDS AREA VENTILATION SYSTEM

ECCS Pump Rooms Exhaust Air Cleanup System (PREACS) trains

LIMITING CONDITION FOR OPERATION

3.7.12 3.7.8.1 Two ~~safeguards area ventilation systems~~ (SAVS) shall be OPERABLE with:

a. One SAVS exhaust fan, and

b. One auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 1).

APPLICABILITY: MODES 1, 2, 3 and 4.

← INSERT PROPOSED LCO NOTE

ACTION:

ECCS PREACS train

Actron A.1 Actron C.1 Action C.2 With one SAVS inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Actron B.1 ← INSERT PROPOSED REQUIRED ACTION B.1

SURVEILLANCE REQUIREMENTS

ECCS PREACS train

4.7.8.1 Each ~~SAVS system~~ shall be demonstrated OPERABLE:

a. At least once per 31 days ~~on a STAGGERED TEST BASIS~~ by:

1. Initiating, ~~from the control room,~~ flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the SAVS operates for at least 10 hours with the heater on.

SR 3.7.12.2 SR 3.7.12.1

← INSERT PROPOSED SR 3.7.12.3

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system, by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 6,300 cfm ± 10% (except as shown in Specifications 4.7.8 1e. and f.).

See ITS 5.0

A.1 M.1 LA.1 M.2 M.1 M.2 M.1 L.1 LA.2 A.2

PLANT SYSTEM

ITS **SURVEILLANCE REQUIREMENTS (cont'd)**

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 95%.

3. Verifying a system flow rate of 6,300 cfm ± 10% during operation when tested in accordance with ANSI N510-1975.

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 95%.

<See ITS S.0>

d. At least once per 18 months by:

1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is less than 6 inches Water Gauge while operating the ventilation system at a flow rate of 6,300 cfm ± 10%.

<See ITS S.0>

actual or simulated

2. Verifying that on a ~~Containment Pressure High-High Test~~ Signal, the system automatically diverts its exhaust flow through the auxiliary building HEPA filter and charcoal adsorber assembly.

L.2

LA.3

SR 3.7.12.4

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove greater than or equal to 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm ± 10%.

<See ITS S.0>

← INSERT PROPOSED SR 3.7.12.5

M.2

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 ITS SR 3.7.12.3 requires performing required ECCS PREACS filter testing in accordance with the Ventilation Filter Testing Program (VFTP). CTS 4.7.8.1 does not include a VFTP, but the requirements that makeup the VFTP are being moved to ITS 5.0. This changes CTS by requiring testing in accordance with the VFTP, whose requirements are being moved to ITS 5.0.

This change is acceptable because filter testing requirements are being moved to the VFTP as part of ITS 5.0, and ITS SR 3.7.12.2 references the VFTP for performing these tests. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

M.1 CTS LCO 3.7.8.1 states, "Two safeguards area ventilation systems (SAVS) shall be OPERABLE with: a. one SAVS exhaust fan b. one auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 2)." In the Unit 2 CTS, the reference to the other unit states, "(shared with Unit 1)." CTS ACTION addresses the inoperability of one SAVS. CTS 4.7.8.1 states, "Each SAVS system shall be demonstrated OPERABLE." CTS 4.7.8.1.a.1 requires, "...verifying that the SAVS operates for at least 10 hours with the heater on." ITS 3.7.12 states, "Two ECCS PREACS trains shall be OPERABLE." ITS Condition A addresses the inoperability of one ECCS PREACS train. ITS SR 3.7.12.1 and SR 3.7.12.2 require the respective surveillances be performed on each ECCS PREACS train. This changes CTS by applying the requirements to all the components that constitute an ECCS PREACS train, rather than just the SAVS.

This change is acceptable because it is consistent with the intent of NUREG-1431 to address the filtering of air from areas in the vicinity of all ECCS pumps. Replacing the term SAVS with ECCS PREACS and defining what ECCS PREACS consists of in the Bases, such as the Auxiliary Building Central exhaust system, better represents the intent of this requirement. This change is designated as more restrictive because additional plant components are represented in the Technical Specifications.

M.2 ITS SR 3.7.12.5 states, "Verify one ECCS PREACS train can maintain a negative pressure relative to atmospheric pressure during the post accident mode of operation." The Frequency is 18 months on a STAGGERED TEST BASIS. ITS LCO 3.7.12 includes a NOTE that states, "The ECCS pump room boundary openings not open by design may be opened intermittently under administrative control." ITS Required Action B.1 requires that when two ECCS PREACS trains are inoperable due to an inoperable ECCS pump room boundary, that the ECCS pump room boundary be restored to OPERABLE status within 24 hours. This changes CTS by adding a requirement that equipment be able to provide a negative pressure relative to atmospheric pressure for the required ECCS PREACS areas. The ITS LCO 3.7.12 NOTE states allowed exceptions to the requirements of ITS SR 3.7.12.5. The ITS Required Action B.1 provides a 24 hour Completion Time in case two ECCS PREACS trains are inoperable due to an inoperable ECCS pump room boundary.

The purpose of ITS SR 3.7.12.5, the ITS LCO 3.7.12 NOTE, and ITS 3.7.12 Required Action B.1 is to provide assurance that the boundaries of ECCS PREACS areas can support the function of ECCS PREACS. This change is acceptable because ITS SR 3.7.12.5, the ITS LCO 3.7.12 NOTE, and ITS 3.7.12 Required Action B.1 provide the appropriate controls, based on unit design, for the ECCS PREACS to perform its function of maintaining a negative pressure in the ECCS PREACS areas while filtering air discharged from those areas. This change is designated as more restrictive because a Surveillance Requirement is added to the Technical Specifications.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* The Unit 1 CTS 3.7.8.1 states, "Two safeguards area ventilation systems (SAVS) shall be OPERABLE with: a. one SAVS exhaust fan b. one auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 2)." In the Unit 2 CTS, the reference to the other unit states, "(shared with Unit 1)." ITS 3.7.12 states, "Two ECCS PREACS trains shall be OPERABLE." This changes the CTS by moving the details of what the subsystems consist of and the fact that the two units share portions of the system 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 for the ECCS PREACS trains

to be OPERABLE, regardless of whether the systems are shared. 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.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.7.8.1.a.1 states that each SAVS system shall be demonstrated OPERABLE by, "Initiating, from the control room, flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the SAVS operates for at least 10 hours with the heater on." ITS 3.7.12.2 states, "Actuate each ECCS PREACS train by aligning Safeguards Area exhaust flow and Auxiliary Building Central exhaust system flow through the Auxiliary Building HEPA filter and charcoal adsorber assembly." This changes the CTS by moving the fact that the system is actuated from the control room to the Bases. The changes associated with adding Auxiliary Building Central exhaust system components and flow are addressed by DOC M.1.

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 actuate Safeguards Area exhaust flow and Auxiliary Building Central exhaust system flow through the Auxiliary Building HEPA filter and charcoal adsorber assembly for the operating Safeguards Area fan. 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 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.7.8.1.d.2 requires that part of demonstrating SAVS OPERABILITY is, "Verifying that on a Containment Hi-Hi Test Signal, the system automatically diverts Safeguards Area exhaust flow through the Auxiliary Building HEPA filter and charcoal adsorber assembly." ITS SR 3.7.12.4 states, "Verify Safeguards Area exhaust flow is diverted and each Auxiliary Building filter bank is actuated on an actual or simulated actuation signal." This changes the CTS by moving the detail regarding the specific signal used and flow paths to the Bases. The change adding the option of using an actual signal is addressed in DOC L.2.

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 SAVS subsystems automatically actuate and flow can be properly aligned. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases, as appropriate. 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.

LESS RESTRICTIVE CHANGES

L.1 *(Category 3 – Relaxation of Completion Time)* CTS 4.7.8.1 states, "Each ECCS PREACS train shall be demonstrated OPERABLE: a. At least once per 31 days on a STAGGERED TEST BASIS by: 1. Initiating, from the control room, Safeguards Area exhaust flow and Auxiliary Building Central exhaust flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the ECCS PREACS train operates for at least 10 hours with the heater on." ITS SR 3.7.12.1 states, "Operate each ECCS PREACS train for ≥ 10 continuous hours with the heaters operating." The Frequency is every 31 days. This changes the CTS by removing the STAGGERED TEST BASIS requirement from the 31 day frequency. The change moving details of the test to the Bases is addressed in a removed detail discussion of change.

The purpose of CTS 4.7.8.1 is to provide a degree of assurance that the required ECCS PREACS trains will operate properly when required. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. This change still requires the ECCS PREACS trains to be tested every 31 days, but deletes the requirement they be tested in evenly spaced time intervals during the 31 days. This change is designated as less restrictive because Surveillances will be performed with fewer restrictions on Frequency under the ITS than under the CTS.

L.2 *(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria)* CTS 4.7.8.1.d.2 requires demonstrating the SAVS OPERABLE every 18 months by, "Verifying that on a Containment Hi-Hi Test Signal, the system automatically diverts Safeguards Area exhaust flow..." ITS SR 3.7.12.4 states, "Verify Safeguards Area exhaust flow is diverted and each Auxiliary Building filter bank is actuated on an actual or simulated actuation signal." The frequency is every 18 months. This changes the CTS by allowing the automatic actuation to be verified by either an actual or simulated actuation signal. The change moving the detail of what is verified by the surveillance and how it is performed to the Bases is addressed in DOC LA.3.

The purpose of CTS 4.7.8.1.d.2 is to ensure that the portions of the ECCS PREACS trains required to actuate and which receive an actuation signal actuate 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. Equipment can not discriminate between 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.

UNIT 1

(A.1)

ITS

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.13

3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

a. The emergency ventilation system.

Three trains of

b. The bottled air pressurization system.

c. Two air conditioning systems.

<See ITS 3.7.10>

(M.1)

<See ITS 3.7.11>

APPLICABILITY: MODES 1, 2, 3 and 4. ← INSERT NOTE (L.5) (M.4) (M.2)

ACTION: During movement of recently irradiated fuel assemblies,

<See ITS 3.7.10>

one required train of

Action A.1

a. With either the emergency ventilation system or the bottled air presurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

(L.4) (M.3) (M.2)

Action D.1
Actron D.2

two or more required trains of

in MODE 1, 2, 3, or 4

b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of two trains these systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.10>

(M.2)

(L.1)

Actron C.1

Actron D.1
Actron D.2

10

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY wtihin the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.11>

Two or more required bottled air system trains inoperable due to inoperable MCR/ESGR boundary in MODE 1, 2, 3, or 4, restore MCR/ESGR boundary to OPERABLE status within 24 hours.

Action B.1

(M.3)

← INSERT PROPOSED CONDITION E

(M.4)

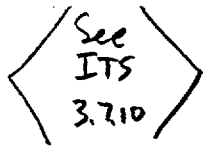
ITS

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.



b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm ± 10% (except as shown in Specifications 4.7.7.1e. and f.).

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

3. Verifying a system flow rate of 1000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

SR 3.7.13.3
SR 3.7.13.4

d. At least once per 18 months by:

1. Verifying that the pressure drop across the demister filter, HEPA filter and charcoal adsorber is < 4 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm ± 10%.

A.1

ITS 3.7.13

PLANT SYSTEM

ITS

SURVEILLANCE REQUIREMENTS (Continued)

each required MCR/ESGR bottled air system train actuates — M.5

on an actual or simulated actuation — L.2

SR 3.7.13.3

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal. — LA.2

3. Verifying that the system maintains the control room at a positive pressure of ≥ 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%. — See ITS 3.7.10

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%. — See ITS 5.0

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove ≥ 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

SR 3.7.13.2 — M.6

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 2) each pressurized to at least 2300 psig. — LA.3

SR 3.7.13.1

b. At least once per 18 months by verifying that the system (two required trains) will supply at least 340 cfm of air to maintain the control room at a positive pressure of ≥ 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes. — M.7

SR 3.7.13.4

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is ≤ 120°F. — See ITS 3.7.11

on a STAGGERED TEST BASIS — L.3

adjacent areas — M.8

each required MCR/ESGR bottled air bank manual valve not locked, sealed, or otherwise secured, and required to be open during accident conditions is open — M.6

Letter SN 00-609

UNIT 2

A.1

PLANT SYSTEMS

ITS

3/4.7.7 CONTROL ROOM EMERGENCY HABITABILITY SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.13

3.7.7.1 The following control room emergency habitability systems shall be OPERABLE:

a. The emergency ventilation system,

Three trains of b. The bottled air pressurization system, and

c. Two air conditioning systems.

<See ITS 3.7.10> M.1 LA.1

<See ITS 3.7.11> L.5 M.4 M.2

APPLICABILITY: MODES 1, 2, 3 and 4.

INSERT NOTE

one required train of ACTION: During movement of recently irradiated fuel assemblies

Actron A.1 Actron A.1 Actron D.2 a. With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.10> L.4 M.3 M.2

two or more required trains of

b. With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these two systems to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

in MODE 1, 2, 3, or 4

Action C.1 Actron A.1 Actron D.2

trains

<See ITS 3.7.10> M.2 L.1

c. With one air conditioning system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

d. With both air conditioning systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in at least COLD SHUTDOWN within the following 30 hours.

<See ITS 3.7.11>

*Shared with Unit 1

LA.1

Actron B.1 Two or more required bottled air system trains inoperable due to inoperable MCR/ESGR boundary in MODE 1, 2, 3, or 4, restore MCR/ESGR boundary to OPERABLE status within 24 hours.

M.3

 INSERT PROPOSED CONDITION E M.4

ITS

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

<See ITS 3.7.10>

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm ± 10% (except as shown in Specifications 4.7.7.1e. and f.).

2. Verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

3. Verifying a system flow rate of 1000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

<See ITS 5.0>

c. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than or equal to 2.5% when tested in accordance with ASTM D 3803-1989 at a temperature of 30°C (86°F) and a relative humidity of 70%.

SR 3.7.13.3
SR 3.7.13.4

d. At least once per 18 months by:

1. Verifying that the pressure drop across the demister filter, HEPA filter and charcoal adsorber assembly is < 4 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm ± 10%.

<See ITS 5.0>

A.1

ITS 3.7.13

each required MCR/ESGR bottled air system train actuates — M.5

ITS

SURVEILLANCE REQUIREMENTS (Continued)

on an actual or simulated actuation — L.2

SR 3.7.13.3

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal. — LA.2

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm ± 10%. — See ITS 3.7.10

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that that charcoal adsorbers remove greater than or equal to 99% of a halgenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 1000 cfm ± 10%. — See ITS 5.0

4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:

SR 3.7.13.2
SR 3.7.13.1

a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with Unit 1) each pressurized to at least 2300 psig. — M.6 — LA.3

b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of greater than or equal to 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes. — two required trains — M.7

SR 3.7.13.4

4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F. — See ITS 3.7.11

on a STAGGERED TEST BASIS — L.3

adjacent areas — M.8

each required MCR/ESGR bottled air bank manual valve not locked, sealed, or otherwise secured, and required to be open during accident conditions is open — M.6

Letter SN 00-609

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

M.1 CTS 3.7.7.1 requires the bottled air pressurization system to be OPERABLE. ITS 3.7.13 states, "Three MCR/ESGR bottled air system trains shall be OPERABLE." This changes CTS by specifying the number of MCR/ESGR bottled air system trains required to be OPERABLE.

The purpose of CTS 3.7.7.1 is to provide assurance that the equipment necessary to maintain MCR/ESGR habitability is OPERABLE. This change is acceptable because it clarifies what is required of the systems by the safety analysis and plant design. These requirements were not explicitly stated in the CTS. This change is designated as more restrictive because it is more specific regarding what system components are required to be OPERABLE.

M.2 CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems to OPERABLE status within 24 hours." ITS 3.7.13 Condition A states, "One required MCR/ESGR bottled air system train inoperable." ITS Required Action A.1 states, "Restore train to OPERABLE status," within 7 days. ITS 3.7.13 Required Action C.1 is added, allowing 24 hours to restore at least two MCR/ESGR bottled air system trains to OPERABLE status if two or more required trains are inoperable for reasons other than an inoperable MCR/ESGR boundary. The Bases for Required Action C.1 state, "During the period that two or more required trains of the MCR/ESGR bottled air system are inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition." This changes CTS by allowing only one required train of the MCR/ESGR EVS and MCR/ESGR bottled air system to be inoperable for 7 days, and allowing two or more required trains of the MCR/ESGR bottled air system to be inoperable for any reason for 24 hours instead of

7 days. This also changes CTS by requiring compensatory measures be taken while two or more trains of the MCR/ESGR bottled air system are inoperable. Not allowing both the MCR/ESGR EVS and MCR/ESGR bottled air system to be inoperable concurrently for 24 hours except for an inoperable MCR/ESGR boundary is addressed by DOC M.3.

The purpose of CTS 3.7.7.1 Action a. is to allow a reasonable time to respond to the loss of part of the MCR/ESGR bottled air system. This change is acceptable because it better represents inoperabilities that the MCR/ESGR bottled air system can sustain and still perform its safety function, while providing reasonable limits on the time that portions of the system are inoperable. With two required trains of the MCR/ESGR bottled air system OPERABLE, the MCR/ESGR bottled air system can still keep exposure in the MCR/ESGR envelope within limits. The change is also acceptable based on the low probability of a DBA occurring during the time period two or more required MCR/ESGR bottled air system trains are inoperable, and compensatory actions to provide some degree of protection should an event occur. This change is designated as more restrictive because it is more specific and limiting on what portions of the MCR/ESGR bottled air system may be inoperable for 7 days, only allows the MCR/ESGR bottled air system to be completely inoperable for 24 hours, and the requirement is added for compensatory actions when two or more required trains of the MCR/ESGR bottled air system are inoperable.

M.3 CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems 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." ITS 3.7.13 Required Action B.1 requires that with two or more required MCR/ESGR bottled air system trains inoperable due to an inoperable MSR/ESGR boundary in MODE 1, 2, 3, or 4, restore the MCR/ESGR boundary to OPERABLE status within 24 hours. The Bases for Required Action B.1 state, "During the period that the MCR/ESGR boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition." ITS 3.7.13 Condition D requires that if the Required Actions and associated Completion Time of Condition A, B or C are not met, the unit be in MODE 3 in 6 hours, and MODE 5 in 36 hours. This changes CTS by not providing a Completion time of 24 hours when the two or more required MCR/ESGR EVS trains and two or more required MCR/ESGR bottled air trains are inoperable at the same time, except for an inoperable MCR/ESGR boundary. This also changes CTS by requiring compensatory measures be taken while the MCR/ESGR boundary is inoperable. This results in 23 fewer hours allowed to place the unit in MODE 3 and MODE 5, and requires additional compensatory actions be taken.

The purpose of CTS 3.7.7.1 Action b is to limit the time that the unit is without the

ability to maintain the MCR/ESGR envelope air habitable. The change still allows 24 hours to repair the MCR/ESGR boundary. This is reasonable based on the low probability of a DBA occurring during this time period, and the ability of the MCR/ESGR EVS and compensatory actions to provide some degree of protection should an event occur. This change is acceptable because the time during which the system function can not be met because the required MCR/ESGR EVS and MCR/ESGR bottled air system trains are inoperable should be minimized, and compensatory measures can be taken. This change is designated as a more restrictive change because the Completion Time for performing a Required Action has been reduced, and the requirement is added for compensatory actions when the MCR/ESGR boundary is inoperable.

M.4 ITS 3.7.13 Applicability includes, "During movement of recently irradiated fuel assemblies." ITS 3.7.13 Condition E requires movement of recently irradiated fuel assemblies be stopped immediately if, "Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies OR Two or more required MCR/ESGR bottled air system trains inoperable during movement of recently irradiated fuel assemblies." CTS 3.7.7.1 does not include this Applicability or these Required Actions. This changes CTS by adding a new Applicability and associated Required Actions.

The purpose of CTS 3.7.7.1 is to provide assurance that the MCR/ESGR envelope environment is protected during a DBA. This change is acceptable because the MCR/ESGR bottled air system function is assumed in the DBA analysis for a fuel handling accident. This change adds the appropriate Applicability and Required Actions for these assumed initial conditions in the DBA analysis. This change is designated as more restrictive because the LCO requirements are applicable in more conditions than in the CTS, and associated Required Actions are added.

M.5 CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.13.3 states, "Verify each required MCR/ESGR bottled air system train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes CTS by requiring verification of automatic actuation of each MCR/ESGR bottled air system train on an actual or simulated actuation signal. The change moving details of how the test is performed are addressed in a removed detail discussion of change.

The purpose of CTS 4.7.7.1.d.2 is to verify the MCR/ESGR envelope is automatically isolated from the contaminated environment in case of a DBA. This change is acceptable because the isolation from the environment is part of the activity automatically actuating each required MCR/ESGR bottled air system train. Adding the requirement to verify each MCR/ESGR bottled air system train actuates automatically is consistent with intent of testing the automatic actuation of the system.

This change is designated as more restrictive because testing of additional portions of the system are specified.

M.6 CTS 4.7.7.2 states, "The bottled air pressurization system shall be demonstrated OPERABLE: a. At least once per 31 days by verifying that the system contains a minimum of 84 bottles of air (shared with Unit 2) each pressurized to at least 2300 psig." The Unit 2 CTS refer to sharing with Unit 1. ITS SR 3.7.13.2 states, "Verify each MCR/ESGR bottled air bank manual valve not locked, sealed, or otherwise secured and required to be open during accident conditions is open," every 31 days. This changes CTS by specifying the valve positions for the MCR/ESGR bottled air system must be verified as described. Moving the reference to the other unit and the number of required bottles is addressed by DOC LA.3.

The purpose of CTS 4.7.7.2.a is to provide assurance that sufficient bottles are in service to perform the system function. This change is acceptable because it verifies that the valve lineup is correct, assuring the correct number of bottles are in service. This change is designated as more restrictive because the method of performing the surveillance is more specific.

M.7 CTS 4.7.7.2.b specify positive pressure and flow requirements that must be met by the control room bottled air pressurization system. ITS SR 3.7.13.4 states the positive pressure and flow requirements that must be met by two required trains of the MCR/ESGR bottled air system. This changes the CTS by specifying that the two required trains must be capable of performing the specified Surveillance Requirement.

This change is acceptable because only by testing each of the trains that may be required to perform the safety function assumed in the DBA analysis can there be assurance that the system as a whole will perform as required. This change is designated as more restrictive because places more stringent requirements to be demonstrated by Surveillance Requirements.

M.8 CTS 4.7.7.2.b uses a reference of "outside atmosphere" with regard to the pressure at which the bottled air system must maintain the control room. ITS SR 3.7.13.4 uses the reference "adjacent areas." This changes the reference used when determining whether the MCR/ESGR envelope has been sufficiently pressurized to a more specific reference.

The purpose of CTS 4.7.7.2.b is to provide assurance that the MCR/ESGR envelope provides adequate protection for the control room operators from radioactive material outside the control room. This change is acceptable because it provides assurance that the pressure measured in the control room is with regard to areas adjacent to the control room, rather than a less specific reference of outside atmosphere, which could be otherwise interpreted. This change is designated as more restrictive because it places more stringent requirements to be demonstrated by Surveillance Requirements.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

LA.1 *(Type 1 – Removing Details of System Design and System Description, Including Design Limits)* Unit 2 CTS 3.7.7.1 states, "The following control room emergency habitability systems shall be OPERABLE:... b. The bottled air pressurization system*..." CTS 3.7.7.1 "*" states, "Shared with Unit 1." ITS 3.7.13 requires two MCR/ESGR bottled air system trains to be OPERABLE. This changes the CTS by moving the fact that the two units share the bottled air system 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 for the two required MCR/ESGR EVS trains and two MCR/ESGR bottled air system trains to be OPERABLE during the specified Applicability, which applies to whichever unit is meeting ITS LCO 3.7.13. 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.2 *(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.13.3 states, "Verify each MCR/ESGR bottled air system train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes the CTS by moving the detail of what is verified by the Surveillance to the Bases. The change adding the, "actual or simulated actuation," phrase is addressed DOC L.2.

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 periodically verify that the MCR/ESGR bottled air system train actuates on an actual or simulated actuation signal. 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 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems)* The Unit 1 CTS 4.7.7.2 states, "The bottled air pressurization system shall be demonstrated OPERABLE: a. At least once per 31 days by verifying that the system contains a minimum of 102 bottles of air (shared with unit 2) each pressurized to at least 2300 psig." In the Unit 2 CTS, the reference to the other unit states, "shared with unit 1." ITS SR 3.7.13.3 states, "Verify each required MCR/ESGR bottled air bank is pressurized to ≥ 2300 psig." ITS SR 3.7.13.4 states, "Verify each MCR/ESGR bottled air bank manual valve not locked, sealed, or otherwise secured and required to be open during accident conditions is open." The Frequency is every 31 days. This changes the CTS by moving the detail that the bottles are shared with the other unit and the number of bottles required 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 periodically verify OPERABILITY of the required bottles. Also, this change is acceptable because the removed information will be adequately controlled in the ITS Bases, as appropriate. 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.

LESS RESTRICTIVE CHANGES

L.1 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems 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." ITS 3.7.13 Condition A states, "One required MCR/ESGR bottled air system train inoperable." ITS Required Action A.1 states, "Restore train to OPERABLE status," within 7 days. ITS 3.7.10, "MCR/ESGR EVS-MODES 1, 2, 3, and 4," has a similar Required Action A.1. This changes the CTS by allowing portions of both the MCR/ESGR

bottled air system and the MCR/ESGR EVS to be inoperable for 7 days rather than 24 hours. Changes associated with identifying system train inoperabilities rather than whole systems are addressed by DOC M.2. Changes associated with not allowing both systems to be inoperable for 24 hours are addressed by DOC M.3. Changes associated with the MCR/ESGR bottled air system are addressed in ITS 3.7.13.

The purpose of CTS 3.7.7.1 Action a and Action b is to provide assurance that the MCR/ESGR Emergency Habitability System (EHS) can provide a habitable environment for the operators by limiting the time that redundancy of the MCR/ESGR EHS is not available. 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. This change allows up to 7 days for one train of the MCR/ESGR bottled air system and MCR/ESGR EVS to be inoperable because the EHS can still perform its safety function. CTS 3.7.7.1 Action b only allowed the systems to be inoperable concurrently for 24 hours, though trains were not specified. 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.

L.2 (*Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria*) CTS 4.7.7.1 states, "Each control room emergency ventilation system shall be demonstrated OPERABLE:...d. At least once per 18 months by:...2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal." ITS SR 3.7.13.3 states, "Verify each MCR/ESGR bottled air system train actuates on an actual or simulated actuation signal." The Frequency is every 18 months. This changes the CTS by allowing the automatic actuation to be verified by either an actual or simulated actuation signal. The change moving the detail of what is verified by the surveillance and how it is performed to the Bases is addressed in a removed detail discussion of change.

The purpose of CTS 4.7.7.1.d.2 is to ensure that the portions of the MCR/ESGR bottled air system required to actuate and which receive an actuation signal actuate 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. Equipment can not discriminate between 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.3 (*Category 7 – Relaxation Of Surveillance Frequency)* CTS 4.7.7.2.b states, "Each

bottled air pressurization system shall be demonstrated OPERABLE :...At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of ≥ 0.05 inch W.G. relative to the outside atmosphere for at least 60 minutes." ITS SR 3.7.13.4 requires the same surveillance be performed every 18 months on a STAGGERED TEST BASIS. This changes the CTS by requiring the surveillance be performed every 18 months on a STAGGERED TEST BASIS instead of every 18 months.

The purpose of CTS 4.7.7.2.b is to provide assurance that the MCR/ESGR bottled air system can pressurize the MCR/ESGR envelope sufficiently to meet DBA analyses. This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. This change allows one of the required trains in each respective system to be tested every 18 months, which is consistent with the guidance provided in NUREG-0800. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

L.4 *(Category 3 – Relaxation of Completion Time)* CTS 3.7.7.1 Action a states, "With either the emergency ventilation system or the bottled air pressurization system inoperable, restore the inoperable system to OPERABLE status within 7 days..." CTS 3.7.7.1 Action b states, "With both the emergency ventilation system and the bottled air pressurization system inoperable, restore at least one of these systems 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." ITS 3.7.13 Condition A states, "One required MCR/ESGR bottled air system train inoperable." ITS Required Action A.1 states, "Restore train to OPERABLE status," within 7 days. ITS 3.7.10, "MCR/ESGR EVS-MODES 1, 2, 3, and 4," has a similar Required Action A.1. This changes the CTS by allowing portions of both the MCR/ESGR bottled air system and the MCR/ESGR EVS to be inoperable for 7 days rather than 24 hours. Changes associated with identifying system train inoperabilities rather than whole systems are addressed by DOC M.2. Changes associated with not allowing both systems to be inoperable for 24 hours are addressed by DOC M.3. Changes associated with the MCR/ESGR bottled air system are addressed in ITS 3.7.13.

The purpose of CTS 3.7.7.1 Action a and Action b is to provide assurance that the MCR/ESGR Emergency Habitability System (EHS) can provide a habitable environment for the operators by limiting the time that redundancy of the MCR/ESGR EHS is not available. 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. This change allows up to 7 days for one train of the MCR/ESGR bottled air system and MCR/ESGR EVS to be inoperable because the EHS can still perform its safety function. CTS 3.7.7.1 Action b only allowed the systems to be

inoperable concurrently for 24 hours, though trains were not specified. 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.

L.5 *(Category 1 – Relaxation of LCO Requirements)* The ITS LCO 3.7.13 Note states, "The MCR/ESGR boundary may be opened intermittently under administrative control." This allowance is not explicitly stated in CTS 3.7.7.1. This changes CTS by explicitly allowing the MCR/ESGR boundary to be opened intermittently under administrative control.

The purpose of the ITS LCO 3.7.13 Note is to provide the means by which to exercise an allowance allowed by plant design, such as opening the MCR door for access to the control room. This change is acceptable because the plant design allows opening of the boundary under administrative controls for purposes such as MCR access. The LCO requirements continue to ensure that the structures, systems, and components are maintained consistent with the safety analyses and licensing basis. This change will allow the MCR/ESGR boundary to be opened under administrative controls. This change is designated as less restrictive because less stringent LCO requirements are being applied in the ITS than were applied in the CTS.

UNIT 1

INSERT PROPOSED
ITS 3.7.14

M.1

UNIT 2

INSERT PROPOSED ITS 3.7.14 →

M.1

DISCUSSION OF CHANGES
ITS 3.7.14 - MCR/ESGR EVS - DURING MOVEMENT OF RECENTLY IRRADIATED FUEL ASSEMBLIES

ADMINISTRATIVE CHANGES

None.

MORE RESTRICTIVE CHANGES

M.1 ITS 3.7.14 specifies requirements for the MCR/ESGR Emergency Ventilation System (EVS) during movement of recently irradiated fuel assemblies. CTS 3.7.7.1 does not include requirements for the MCR/ESGR EVS during movement of recently irradiated fuel assemblies. This changes CTS by adding requirements for the MCR/ESGR EVS during movement of recently irradiated fuel assemblies.

This change is acceptable because it adds requirements assumed in the analysis of a fuel handling accident during movement of recently irradiated fuel assemblies and is consistent with the ISTS. This change is designated as more restrictive because it adds system requirements for a new applicability requirement.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

None.

LESS RESTRICTIVE CHANGES

None.

UNIT 1

ITS

REFUELING OPERATIONS

FUEL BUILDING VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.15

3.9.12 A fuel building ventilation system shall be OPERABLE and discharging through at least one auxiliary building HEPA filter and charcoal adsorber assembly. L.2

APPLICABILITY: L.1

a. During irradiated fuel movement within the spent fuel pit, or A.3

b. During crane operation with loads over irradiated fuel in the spent fuel pit. L.3

ACTION: A.2

---NOTE---

The fuel building boundary may be opened intermittently under administrative control

3.7.15

a. With a fuel building ventilation system inoperable, irradiated fuel movement within the storage pool or crane operation with loads over the spent fuel pit may proceed provided the fuel building ventilation system is in operation and discharging through at least one train of HEPA filters and charcoal adsorber assemblies. L.3 L.2

Action A.1

b. With no fuel building ventilation system OPERABLE, suspend all operations involving movement of irradiated fuel within the spent fuel pit or crane operation with loads over the spent fuel pit until at least one fuel building ventilation system is restored to OPERABLE status. L.1 L.3

c. The provisions of Specifications 3.0.3, 3.0.4 and 4.0.4 are not applicable. A.4

SURVEILLANCE REQUIREMENTS

4.9.12 The above required fuel building ventilation system shall be demonstrated OPERABLE and discharging through at least one auxiliary building HEPA filter and charcoal adsorber assembly: L.2

a. At least once per 31 days by initiating flow through the HEPA filter and charcoal adsorber assembly for 15 minutes L.2

SR 3.7.15.1

b. At least once per 18 months during system operation, by verifying a 1/8 inch vacuum, water gauge, relative to the outside atmosphere, and

c. By performance of the Surveillance Requirements of Specification 4.7.8.1 b, c, d, e and f. L.2

UNIT 2

A.1

ITS 3.7.15

8-21-80

ITS

REFUELING OPERATIONS

FUEL BUILDING VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.15 3.9.12 A fuel building ventilation system shall be OPERABLE and discharging through at least one auxiliary building HEPA filter and charcoal adsorber assembly. L.2

APPLICABILITY: L.1

a. During irradiated fuel movement within the spent fuel pit, or A.3

b. During crane operation with loads over irradiated fuel in the spent fuel pit. L.3

ACTION: A.2

---- NOTE ----

The fuel building boundary may be opened intermittently under administrative control

3.7.15 a. With a fuel building ventilation system inoperable, irradiated fuel movement within the storage pool or crane operation with loads over the spent fuel pit may proceed provided the fuel building ventilation system is in operation and discharging through at least one train of HEPA filters and charcoal adsorber assemblies. L.3 L.2

Action A.1 b. With no fuel building ventilation system OPERABLE, suspend all operations involving movement of irradiated fuel within the spent fuel pit or crane operation with loads over the spent fuel pit until at least one fuel building ventilation system is restored to OPERABLE status. L.1 L.3

c. The provisions of Specifications 3.0.3, 3.0.4 and 4.0.4 are not applicable. A.4

SURVEILLANCE REQUIREMENTS

4.9.12 The above required fuel building ventilation system shall be demonstrated OPERABLE and discharging through at least one auxiliary building HEPA filter and charcoal adsorber assembly: L.2

a. At least once per 31 days by initiating flow through the HEPA filter and charcoal adsorber assembly for 15 minutes, L.2

SR 3.7.15.1 b. At least once per 18 months during system operation, by verifying a 1/8 inch vacuum, water gauge, relative to the outside atmosphere, and

c. By performance of the Surveillance Requirements of Specification 4.7.8.1 b, c, d, e and f. L.2

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 The ITS LCO 3.7.15 Note states, "The fuel building boundary may be opened intermittently under administrative control." This allowance is not explicitly stated in CTS 3.9.12, but plant practice allows opening of the boundary under administrative controls for specific purposes such as fuel building access.

This change is acceptable because it reflects an existing plant practice necessary for the safe operation of the unit. This change is designated as administrative because it does not result in technical changes to the CTS.

A.3 CTS 3.9.12 refers to irradiated fuel movement within the "spent fuel pit." ITS 3.7.15 refers to recently irradiated fuel movement within the fuel building. This changes the CTS by changing the reference to the location of the fuel movement.

This change is acceptable because all the fuel movement within the fuel building occurs within the spent fuel pit, and requirements associated with the fuel movements remain the same. This change is designated as administrative because it does not result in technical changes to the CTS.

A.4 CTS 3.9.12 Action c. states, "The provisions of Specification 3.0.3, 3.0.4 and 4.0.4 are not applicable." ITS 3.7.15 does not include this statement. ITS LCO 3.0.3 states, "LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4." ITS 3.0.4, the equivalent of CTS 3.0.4, states, "LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4." ITS 4.0.4, the equivalent of CTS 4.0.4, states, "SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4." This changes CTS by deleting reference to and allowance already provided in a different portion of the ITS.

This change is acceptable because ITS LCO 3.0.3, ITS LCO 3.0.4, and ITS SR 3.0.4 requirements are consistent with those stated in the CTS. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

None.

RELOCATED SPECIFICATIONS

None.

REMOVED DETAIL CHANGES

None.

LESS RESTRICTIVE CHANGES

L.1 *(Category 2 – Relaxation of Applicability)* CTS 3.9.12 Applicability includes, "During irradiated fuel movement within the spent fuel pit." ITS 3.7.15 Applicability is, "During movement of recently irradiated fuel assemblies in the fuel building." All references in CTS 3.9.12 to irradiated fuel are changed to "recently" irradiated fuel. This changes the CTS by eliminating requirements for the FBVS during movement of fuel that is not recently irradiated.

The purpose of CTS 3.9.12 is to ensure that the initial assumptions of a fuel handling accident are met. Specifically, the FBVS is required during movement of recently irradiated fuel to ensure that the offsite and onsite doses resulting from a fuel handling accident are within regulatory guidelines. This change is acceptable because the requirements continue to ensure that the structures, systems, and components are maintained in the MODES and other specified conditions assumed in the safety analyses and licensing basis. The only accident postulated to occur during CORE ALTERATIONS which results in significant radioactive release is a fuel handling accident. Therefore, imposing requirements during CORE ALTERATIONS and during movement of irradiated fuel assemblies is repetitive and unnecessary. Fuel handling accidents involving irradiated fuel that has not been recently irradiated will not result in offsite doses in excess of the guidelines in 10 CFR Part 100, even without the FBVS. Recently irradiated fuel is defined by the decay time since the fuel has been part of a critical reactor core. The Company has not determined this plant-specific value for North Anna. Therefore, the Bases state that "recently irradiated" fuel is all irradiated fuel, until such time as the appropriate analyses are performed and the Bases modified in accordance with the Technical Specifications Bases Control Program. This change is designated as less restrictive because the LCO requirements are applicable in fewer operating conditions than in the CTS.

L.2 *(Category 5 – Deletion of Surveillance Requirement)* CTS 4.9.12 states, "The above required fuel building ventilation system shall be demonstrated OPERABLE and

discharging through at least one auxiliary building HEPA filter and charcoal adsorber assembly: a. At least once per 31 days by initiating flow through the HEPA filter and charcoal adsorber assembly for 15 minutes...c. By performance of the Surveillance Requirements of Specification 4.7.8.1 b, c, d, e, and f." CTS LCO 3.9.12 and CTS Action a refer to the HEPA filter and charcoal adsorber assembly of the FBVS. ITS 3.7.15 does not include these requirements. This changes CTS by deleting the testing requirements for the fuel building filtration systems.

The purpose of CTS 4.9.12.a and CTS 4.9.12.c is to verify that the fuel building filters can perform as required. This change is acceptable because the deleted Surveillance Requirement is not necessary to verify that the equipment used to meet the LCO are consistent with the safety analysis and can perform its required functions. Thus, appropriate equipment continues to be tested in a manner and at a frequency necessary to give confidence that the equipment can perform its assumed safety function. The change deletes the requirement for the FBVS filters because the NAPS FHA analysis for the fuel building assumes that all of the radionuclides released from the fuel pool are released without credit for filtration of the released material. This change is designated as less restrictive because Surveillances which are required in the CTS will not be required in the ITS.

L.3 *(Category 2 – Relaxation of Applicability)* CTS 3.9.12 Applicability includes, "b. During crane operation with loads over irradiated fuel in the spent fuel pit." CTS 3.9.12 Actions "a" and "b" address actions to take during "crane operation with loads over the spent fuel pit." ITS 3.7.15 does not include these requirements. This changes CTS by not requiring requirements be met for a portion of the current applicability.

The purpose of CTS 3.9.12 is to ensure that the initial assumptions of a fuel handling accident are met. Specifically, the FBVS is required during movement of recently irradiated fuel to ensure that the offsite and onsite doses resulting from a fuel handling accident are within regulatory guidelines. This change is acceptable because the requirements continue to ensure that the structures, systems, and components are maintained in the MODES and other specified conditions assumed in the safety analyses and licensing basis. The change deletes the Applicability to crane operation with loads over irradiated fuel in the spent fuel pit because this condition is not assumed to potentially result in a FHA, and is not part of the FHA analysis. This change is designated as less restrictive because the LCO requirements are applicable in fewer operating conditions than in the CTS.

UNIT 1

11-26-77

A.1

ITS 3.7.16

ITS

3.7.16

REFUELING OPERATIONS

SPENT FUEL PIT WATER LEVEL

LIMITING CONDITION FOR OPERATION

3.9.11 At least 23 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: ~~Whenever irradiated fuel assemblies are in the spent fuel pit.~~ During movement of irradiated fuel assemblies in the fuel storage pool

L.1

ACTION: irradiated

Action A

With the ~~requirements of the specification not satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel pit areas and place the load in a safe condition. Restore water level to within its limit within 4 hours.~~ The provisions of Specification 3.0.3 are not applicable. immediately.

L.2

Required Action A.1 Note

SURVEILLANCE REQUIREMENTS

4.9.11 The water level in the spent fuel pit shall be determined to be at least at the minimum required depth at least once per 7 days ~~when irradiated fuel assemblies are in the spent fuel pit.~~

L.1

SR 3.7.16.1

page 1 of 1

Rev 0

UNIT 2

ITS 3.7.16

A.1

8-21-80

ITS

REFUELING OPERATIONS

SPENT FUEL PIT WATER LEVEL

LIMITING CONDITION FOR OPERATION

During movement of irradiated fuel assemblies in the fuel storage pool

3.7.16

3.9.11 At least 23 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: ~~Whenever irradiated fuel assemblies are in the spent~~ fuel pit. L.1

ACTION: irradiated

Action A

~~With the requirements of the specification not satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel pit areas and place the load in a safe condition. Restore water level to within its limit within 4 hours.~~ The provisions of Specification 3.0.3 are not applicable. L.2

immediately

SURVEILLANCE REQUIREMENTS

SR 3.7.16.1

4.9.11 ~~The water level in the spent fuel pit shall be determined to be at least at the minimum required depth at least once per 7 days when irradiated fuel assemblies are in the spent fuel pit.~~ L.1

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

None

LESS RESTRICTIVE CHANGES

L.1 *(Category 2 – Relaxation of Applicability)* CTS 3.9.11 states that the requirements on spent fuel pit water level are applicable, "Whenever irradiated fuel assemblies are in the spent fuel pit." CTS 4.9.11 requires the water level in the spent fuel pit to be verified every 7 days when irradiated fuel assemblies are in the spent fuel pit. ITS 3.7.16 is applicable, "During movement of irradiated fuel assemblies in the fuel storage pool." ITS SR 3.7.16.1 requires verification of the spent fuel pool water level every 7 days. This changes the CTS by restricting the applicability of the spent fuel pool water level specification and performance of the Surveillance to during the movement of irradiated fuel assemblies in the fuel storage pool.

The purpose of ITS 3.7.16 is to ensure that the minimum fuel storage pool water level assumption in the fuel handling accident is met. This change is acceptable because the requirements continue to ensure that the structures, systems, and components are maintained in the MODES and other specified conditions assumed in the safety analyses and licensing basis. The North Anna fuel handling accident (outside containment) assumes that a fuel assembly is dropped onto the spent fuel pool floor or

the racks that hold the spent fuel. A key assumption in the analysis is that there is ≥ 23 feet of water over the damaged assembly, as this depth is directly related to the clean up of the fission products before release to the spent fuel pool atmosphere. A fuel handling accident can only occur when an irradiated fuel assembly is being moved. Therefore, the ITS imposes the controls on minimum spent fuel pool water level during the movement of irradiated fuel assemblies in the fuel storage pool. This change is designated as less restrictive because the LCO requirements are applicable in fewer operating conditions than in the CTS.

L.2 *(Category 4 – Relaxation of Required Action)* CTS 3.9.11 ACTION states that when the spent fuel pool water level is not met, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel pit areas and place the load in a safe condition, and restore the water level to within its limit within 4 hours. The CTS also states that Specification 3.0.3 is not applicable. ITS 3.7.16 REQUIRED ACTION A.1 states that when fuel storage pool water level is not within limit, immediately suspend movement of irradiated fuel assemblies in the fuel storage pool. A NOTE to REQUIRED ACTION A.1 states that LCO 3.0.3 is not applicable. This changes the CTS requiring the suspension of movement of only irradiated fuel, by eliminating actions related to crane operation over the spent fuel pool and eliminating the requirement to restore the water level within 4 hours.

The purpose of the CTS 3.9.11 Action is to preclude a fuel handling accident from occurring when the initial conditions for that accident are not met. 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 movement of unirradiated fuel assemblies is not an initiator of a fuel handling accident, as the dropping of an unirradiated fuel assembly has no significant radiological effects. Therefore, stopping the handling of unirradiated fuel assemblies when the spent fuel pool water level is less than the limit is not required. The mishandling of loads over the spent fuel pool is not an initiator to a fuel handling accident. Therefore, these activities are not restricted when the spent fuel pool water level is not within limit. The action to restore the spent fuel pool water level within 4 hours is replaced with an action to suspent movement of irradiated fuel assemblies immediately. ITS Section 1.3 defines an immediate completion time as, "When 'Immediately' is used as a Completion Time, the Required Action should be pursued without delay and in a controlled manner." This action is more appropriate because the possibility of a fuel handling accident should be eliminated as quickly as possible and the CTS does not supply an Action to follow if the water level is not restored within 4 hours because LCO 3.0.3 does not apply. The ITS Action requires actions to start and be continued until the LCO is no longer

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

UNIT 1

12-28-79

PLANT SYSTEMS

STEAM TURBINE ASSEMBLY

LIMITING CONDITION FOR OPERATION

3.7.1.6 The structural integrity of the steam turbine assembly shall be maintained. | 10

APPLICABILITY: MODES 1 and 2

ACTION: With the structural integrity of the steam turbine assembly not conforming to the above requirement restore the structural integrity of the steam turbine prior to placing it in service.

SURVEILLANCE REQUIREMENTS

4.7.1.6 The structural integrity of the steam turbine assembly shall be demonstrated; | 10

a. At least once per 40 months, during shutdown, by a visual and surface inspection of the steam turbine assembly at all accessible locations, and

b. At least once per 10 years, during shutdown, by disassembly of the turbine and performing a visual, surface and volumetric inspection of all normally inaccessible parts.

R1

UNIT 2

8-21-80

PLANT SYSTEMS

STEAM TURBINE ASSEMBLY

LIMITING CONDITION FOR OPERATION

3.7.1.6 The structural integrity of the steam turbine assembly shall be maintained.

APPLICABILITY: MODES 1 and 2

ACTION:

With the structural integrity of the steam turbine assembly not conforming to the above requirement restore the structural integrity of the steam turbine prior to placing it in service.

SURVEILLANCE REQUIREMENTS

4.7.1.6 The structural integrity of the steam turbine assembly shall be demonstrated;

a. At least once per 40 months, during shutdown, by a visual and surface inspection of the steam turbine assembly at all accessible locations, and

b. At least once per 10 years, during shutdown, by disassembly of the turbine and performing a visual, surface and volumetric inspection of all normally inaccessible parts.

(R1)

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.1.6 states that the structural integrity of the steam turbine assembly shall be maintained in MODES 1 and 2. The steam turbine assembly is used to provide the motive force for the main electrical generator. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.1.6 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The steam turbine assembly is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The steam turbine assembly does not meet criterion 1.

2. The steam turbine assembly is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The steam turbine assembly does not meet criterion 2.

3. The steam turbine assembly is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The steam turbine assembly does not meet criterion 3.

4. The steam turbine assembly in MODES 1 and 2 is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. The steam turbine assembly in MODES 1 and 2 was not evaluated in WCAP-11618. An evaluation performed by the Company determined the steam turbine assembly integrity in MODES 1 and 2 is a non-significant risk contributor to core damage frequency and offsite releases. The steam turbine assembly is not assumed to be OPERABLE in MODES 1 or 2 for any scenarios modeled in the North Anna Power Station site-specific PRAs The steam turbine assembly integrity in MODES 1 and 2 does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the steam turbine assembly LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The steam turbine assembly specification will be relocated to the TRM. Changes to the TRM will be controlled

by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

CTS 3.7.1.7

04-16-98

PLANT SYSTEMS

TURBINE OVERSPEED

LIMITING CONDITION FOR OPERATION

3.7.1.7 At least one turbine overspeed protection system shall be OPERABLE.

APPLICABILITY: MODE 1, 2 and 3

ACTION:

With the above required turbine overspeed protection system inoperable, within 6 hours either restore the system to OPERABLE status or isolate the turbine from the steam supply.

R.1

SURVEILLANCE REQUIREMENT

4.7.1.7.1 The provisions of Specification 4.0.4 are not applicable.

4.7.1.7.2 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. By cycling each of the following valves through at least one complete cycle from the running position and verifying movement of each of the valves through one complete cycle from the running position by direct observation:

1. Four Turbine Throttle valves at least once per 92 days,
2. Four Turbine Governor valves at least once per 92 days, *
3. Four Turbine Reheat Stop valves at least once per 18 months, and
4. Four Turbine Reheat Intercept valves at least once per 18 months.

b. At least once per 18 months, by performance of CHANNEL CALIBRATION on the turbine overspeed protection instruments.

c. At least once per 40 months **, by disassembly of at least one of each of the above valves and performing a visual and surface inspection of all valve seats, disks and stems and verifying no unacceptable flaws or corrosion. If unacceptable flaws or excessive corrosion are found, all other valves of that type shall be inspected unless the nature of the problem can be attributed to a service condition specific to that valve.

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* Testing of the turbine governor valves may be suspended during end-of-cycle power coastdown operation between 835 MWe and 386 MWe.

** For reheat stop and reheat intercept valves, the inspection cycle may be increased to a maximum of once per 60 months provided there is no indication of operational distress.

UNIT 2

04-16-98

PLANT SYSTEMS

TURBINE OVERSPEED

LIMITING CONDITION FOR OPERATION

3.7.1.7 At least one turbine overspeed system shall be OPERABLE.

APPLICABILITY: MODE 1, 2 and 3

ACTION:

With the above required turbine overspeed protection system inoperable, within 6 hours either restore the system to OPERABLE status or isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENT

4.7.1.7.1 The provisions of Specification 4.0.4 are not applicable.

4.7.1.7.2 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. By cycling each of the following valves through at least one complete cycle from the running position and verifying movement of each of the valves through one complete cycle from the running position by direct observation:

1. Four Turbine Throttle valves at least once per 92 days,
2. Four Turbine Governor valves at least once per 92 days, *
3. Four Turbine Reheat Stop valves at least once per 18 months, and
4. Four Turbine Reheat Intercept valves at least once per 18 months.

b. At least once per 18 months, by performance of CHANNEL CALIBRATION on the turbine overspeed protection instruments.

c. At least once per 40 months **, by disassembly of at least one of each of the above valves and performing a visual and surface inspection of all valve seats, disks and stems and verifying no unacceptable flaws or corrosion. If unacceptable flaws or excessive corrosion are found, all other valves of that type shall be inspected unless the nature of the problem can be attributed to a service condition specific to that valve.

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* Testing of the turbine governor valves may be suspended during end-of-cycle power coastdown operation between 835 MWe and 386 MWe.

** For reheat stop and reheat intercept valves, the inspection cycle may be increased to a maximum of once per 60 months provided there is no indication of operational distress.

R.1

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.1.7 states that at least one turbine overspeed protection system shall be OPERABLE in MODES 1, 2, and 3. The turbine overspeed protection system is used to prevent a turbine overspeed condition that could result in turbine damage. The turbine overspeed protection system serves no accident mitigation function in any MODE. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.1.7 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The turbine overspeed protection system is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The turbine overspeed protection system does not meet criterion 1.

2. The turbine overspeed protection system is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The turbine overspeed protection system does not meet criterion 2.

3. The turbine overspeed protection system is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The turbine overspeed protection system is not assumed to function during a DBA or transient. The turbine overspeed protection system does not meet criterion 3.

4. The turbine overspeed protection system is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. As discussed in Section 4.0, (Appendix A, page A-30) of WCAP-11618, the turbine overspeed protection system was found to be a non-significant risk contributor to core damage frequency and offsite releases. The Company has reviewed this evaluation, considers it applicable to the North Anna Power Station, and concurs with this assessment. The turbine overspeed protection system is not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. The turbine overspeed protection system does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the turbine overspeed protection system LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The turbine overspeed protection system specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as a relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

11-26-77

PLANT SYSTEMS

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

LIMITING CONDITION FOR OPERATION

3.7.2.1 The temperatures of both the primary and secondary coolants in the steam generators shall be > 70°F when the pressure of either coolant in the steam generator is > 200 psig.

APPLICABILITY: At all times.

ACTION:

With the requirements of the above specification not satisfied:

a. Reduce the steam generator pressure of the applicable side to ≤ 200 psig within 30 minutes, and

b. Perform an engineering evaluation to determine the effect of the overpressurization on the structural integrity of the steam generator. Determine that the steam generator remains acceptable for continued operation prior to increasing its temperatures above 200°F.

R1

SURVEILLANCE REQUIREMENTS

4.7.2.1 The pressure in each side of the steam generator shall be determined to be < 200 psig at least once per hour when the temperature of either the primary or secondary coolant is < 70°F.

UNIT 2

8-21-80 CTS 3.7.2

PLANT SYSTEMS

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

LIMITING CONDITION FOR OPERATION

3.7.2.1 The temperatures of both the primary and secondary coolants in the steam generators shall be greater than 70°F when the pressure of either coolant in the steam generator is greater than 200 psig.

APPLICABILITY: At all times.

ACTION:

With the requirements of the above specification not satisfied:

a. Reduce the steam generator pressure of the applicable side to less than or equal to 200 psig within 30 minutes. and

b. Perform an engineering evaluation to determine the effect of the overpressurization on the structural integrity of the steam generator. Determine that the steam generator remains acceptable for continued operation prior to increasing its temperatures above 200°F.

R.1

SURVEILLANCE REQUIREMENTS

4.7.2.1 The pressure in each side of the steam generator shall be determined to be less than 200 psig at least once per hour when the temperature of either the primary or secondary coolant is less than 70°F.

DISCUSSION OF CHANGES
CTS 3.7.2.1, STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.2.1 states that the temperature of both the primary and secondary coolants in the steam generators shall be greater than 70° when the pressure of either coolant in the steam generator is greater than 200 psig at all times. The Steam Generator Pressure/Temperature Limitation serves no accident mitigation function in any MODE. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.2.1 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The Steam Generator Pressure/Temperature Limitation is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The Steam Generator Pressure/Temperature Limitation does not meet criterion 1.

2. The Steam Generator Pressure/Temperature Limitation is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier The Steam Generator Pressure/Temperature Limitation does not meet criterion 2.

3. The Steam Generator Pressure/Temperature Limitation is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The Steam Generator Pressure/Temperature Limitation does not meet criterion 3.

4. The Steam Generator Pressure/Temperature Limitation is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. As discussed in Section 4.0, (Appendix A, page A-55) of WCAP-11618, the Steam Generator Pressure/Temperature Limitation was found to be a non-significant risk contributor to core damage frequency and offsite releases. The Company has reviewed this evaluation, considers it applicable to the North Anna Power Station, and concurs with this assessment. The Steam Generator Pressure/Temperature Limitation is not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. The Steam Generator Pressure/Temperature Limitation does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Steam Generator Pressure/Temperature Limitation LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The Steam Generator Pressure/Temperature Limitation specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as a relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

07-17-97

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.1 COMPONENT COOLING WATER SUBSYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

3.7.3.1 Three component cooling water subsystems (shared with Unit 2) shall be OPERABLE *, ** with each subsystem consisting of:

a. One OPERABLE component cooling water pump and,

b. One OPERABLE component cooling water heat exchanger.

APPLICABILITY: Either Unit in MODES 1, 2, 3, or 4.

ACTION:

a. With one required component cooling water subsystem inoperable, return the component cooling subsystem to OPERABLE status within the next 7 days, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 24 hours.

b. With two required component cooling water subsystems inoperable, place both units in HOT SHUTDOWN within the next 12 hours, and within the next hour, initiate actions to place both units in COLD SHUTDOWN and continue until COLD SHUTDOWN is achieved.

c. With no component cooling water available to supply the residual heat removal heat exchangers to cool the units, place both units in HOT SHUTDOWN within the next 12 hours and remain in HOT SHUTDOWN until alternate means of decay heat removal can be implemented. Continue actions until both units are in COLD SHUTDOWN.

R.1

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* For the purpose of this Technical Specification. each subsystem is considered OPERABLE if it is operating or if it can be placed in service from a standby condition by manually unisolating a standby heat exchanger and/or manually starting a standby pump.

** For the purpose of service water system upgrades associated with the supply and return piping to/from the component cooling water heat exchangers (CCHXs) which includes encased in concrete and exposed piping from 36" headers to the first isolation valve, the component cooling water subsystems shall be considered OPERABLE with only one service water loop to/from the CCHXs, provided all other requirements in this specification are met. This condition is permitted two times only (once for each SW loop) for a duration of up to 35 days each. During each period of operation with only one SW loop available to/from the CCHXs, the provisions of Specification 3.0.4 are not applicable. Upon completion of the work associated with the second 35-day period, this footnote will no longer be applicable.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.1 COMPONENT COOLING WATER SUBSYSTEM – OPERATING

SURVEILLANCE REQUIREMENTS

4.7.3.1 Three component cooling water subsystems shall be demonstrated OPERABLE:

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

b. Each component cooling water pump shall be tested in accordance with Specification 4.0.5.

R.1

UNIT 2

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.1 COMPONENT COOLING WATER SUBSYSTEM – OPERATING

LIMITING CONDITION FOR OPERATION

3.7.3.1 Three component cooling water subsystems (shared with Unit 1) shall be OPERABLE*, ** with each subsystem consisting of:

a. One OPERABLE component cooling water pump and.

b. One OPERABLE component cooling water heat exchanger.

APPLICABILITY: Either Unit in MODES 1, 2, 3, or 4.

ACTION:

a. With one required component cooling water subsystem inoperable, return the component cooling subsystem to OPERABLE status within the next 7 days, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 24 hours.

b. With two required component cooling water subsystems inoperable, place both units in HOT SHUTDOWN within the next 12 hours, and within the next hour, initiate actions to place both units in COLD SHUTDOWN and continue until COLD SHUTDOWN is achieved.

c. With no component cooling water available to supply the residual heat removal heat exchangers to cool the units, place both units in HOT SHUTDOWN within the next 12 hours and remain in HOT SHUTDOWN until alternate means of decay heat removal can be implemented. Continue actions until both units are in COLD SHUTDOWN.

R.1

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* For the purpose of this Technical Specification, each subsystem is considered OPERABLE if it is operating or if it can be placed in service from a standby condition by manually unisolating a standby heat exchanger and/or manually starting a standby pump.

** For the purpose of service water system upgrades associated with the supply and return piping to/from the component cooling water heat exchangers (CCHXs) which includes encased in concrete and exposed piping from 36" headers to the first isolation valve, the component cooling water subsystems shall be considered OPERABLE with only one service water loop to/from the CCHXs, provided all other requirements in this specification are met. This condition is permitted two times only (once for each SW loop) for a duration of up to 35 days each. During each period of operation with only one SW loop available to/from the CCHXs, the provisions of Specification 3.0.4 are not applicable. Upon completion of the work associated with the second 35-day period, this footnote will no longer be applicable.

CTS 3.7.3.1

10-11-95

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.1 COMPONENT COOLING WATER SUBSYSTEM – OPERATING

SURVEILLANCE REQUIREMENTS

4.7.3.1 Three component cooling water subsystems shall be demonstrated OPERABLE:

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

b. Each component cooling water pump shall be tested in accordance with Specification 4.0.5.

R.1

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.3.1 states that three component cooling (CC) water system loops shall be OPERABLE. It is applicable when either unit is in MODES 1, 2, 3, or 4. The primary function of the CC System is to provide cooling water to the Residual Heat Removal (RHR) heat exchangers. Unlike other Westinghouse plants, the RHR at North Anna Power Station (NAPS) does not share components with the Emergency Core Cooling System (ECCS), and thus does not play a role in DBA mitigation. At NAPS, this post-accident heat removal function is provided primarily by the Recirculation Spray System and the Low Head Safety Injection pumps. For this reason, CC is not required for DBA mitigation, and, like RHR, does not meet Criterion 3 of 10 CFR 50.36(c)(2)(ii) for retention in the Technical Specifications for MODES 1, 2, 3, and 4. Other plants use CC for DBA mitigation functions other than ECCS, such as containment cooling, but the CC system at NAPS does not. This makes the CC System at NAPS different from the CC System described in the ISTS, and retaining the CC requirement for supporting RHR or any other components not assumed in DBA analysis is inappropriate. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.3.1 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The CC System is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The CC System does not meet criterion 1.

2. The CC System is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The CC System does not meet criterion 2.

3. The CC System is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The CC System in MODES 1, 2, 3, or 4 was evaluated in WCAP-11618 for the generic Westinghouse plant. WCAP-11618 assumed that the CC System served as a support system to various systems which are assumed to function to mitigate various DBAs. However, at NAPS, the CC System is not assumed to function to mitigate any DBAs. The CC System does not meet criterion 3.

4. The CC System is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to

public health and safety. An evaluation performed by the Company determined that the CC System in MODES 1, 2, 3, or 4 is a non-significant risk contributor to core damage frequency and offsite releases. The CC System is not important for any scenarios modeled for MODES 1, 2, 3, or 4 in the NAPS site-specific PRAs. The CC System in MODES 1, 2, 3, or 4 does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Component Cooling Subsystem - Operating LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The Component Cooling Subsystem - Operating specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

CTS 3.7.3.2

10-11-95

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.2 COMPONENT COOLING WATER SUBSYSTEM – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.3.2 Two component cooling water subsystems (shared with Unit 2) shall be OPERABLE* with each subsystem consisting of:

a. One OPERABLE component cooling water pump and,

b. One OPERABLE component cooling water heat exchanger.

APPLICABILITY: Both Units in MODES 5 or 6.

ACTION:

With one required component cooling water subsystem inoperable, immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

R.1

SURVEILLANCE REQUIREMENTS

4.7.3.2 At least two component cooling water subsystems shall be demonstrated OPERABLE:

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

b. Each component cooling water pump shall be tested in accordance with Specification 4.0.5.

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* For the purposes of this Technical Specification, each subsystem is considered OPERABLE if it is operating or if it can be placed in service from a standby condition by manually unisolating a standby heat exchanger and/or manually starting a standby pump.

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Rev. 0

UNIT 2

CTS 3.7.3.2

10-11-95

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

3/4.7.3.2 COMPONENT COOLING WATER SUBSYSTEM – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.3.2 Two component cooling water subsystems (shared with Unit 1) shall be OPERABLE* with each subsystem consisting of:

a. One OPERABLE component cooling water pump and,

b. One OPERABLE component cooling water heat exchanger.

APPLICABILITY: Both Units in MODES 5 or 6.

ACTION:

With one required component cooling water subsystem inoperable, immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

SURVEILLANCE REQUIREMENTS

R.1

4.7.3.2 At least two component cooling water subsystems shall be demonstrated OPERABLE:

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

b. Each component cooling water pump shall be tested in accordance with Specification 4.0.5.

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* For the purposes of this Technical Specification, each subsystem is considered OPERABLE if it is operating or if it can be placed in service from a standby condition by manually unisolating a standby heat exchanger and/or manually starting a standby pump.

Rev 0

page 1 of 1

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.3.2 states that two component cooling water system (CC) loops shall be OPERABLE. It is applicable when both units are in MODES 5 or 6. The primary function of the CC System is to provide cooling water to the Residual Heat Removal (RHR) heat exchangers, but does not warrant its own LCO. If insufficient CC is available for RHR, RHR is declared inoperable and the Conditions and Actions for CC in CTS are the same as those for RHR. Unlike other Westinghouse plants, RHR does not share components with the Emergency Core Cooling System (ECCS), and thus does not play a role in DBA mitigation in MODES 1, 2, 3, and 4. Other plants use CC for DBA mitigation functions other than ECCS in MODES 1, 2, 3, and 4, but the CC system at NAPS does not. This makes the CC System at NAPS different from the CC System described in the ISTS, and retaining the CC requirement for MODES 5 and 6 for supporting RHR or any other components not assumed in DBA analysis is inappropriate. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.3.2 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

50.36(c)(2)(ii) Criteria Evaluation:

1. The CC System in MODES 5 or 6 is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The CC System does not meet criterion 1.

2. The CC System in MODES 5 or 6 is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The CC System does not meet criterion 2.

3. The CC System in MODES 5 or 6 is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The CC System does not meet criterion 3.

4. The CC System in MODES 5 or 6 is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. The CC System in MODES 5 or 6 was not evaluated in WCAP-11618. An evaluation performed by the Company determined that the CC System in MODES 5 or 6, outside of its role to support systems which are required by the CTS to be OPERABLE in MODES 5 or 6, is a non-significant risk contributor to core damage frequency and

offsite releases. The CC System is not important for any scenarios modeled for MODES 5 or 6 in the North Anna Power Station site-specific PRAs. The CC System in MODES 5 and 6 does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Component Cooling Subsystem - Shutdown LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The Component Cooling Subsystem - Shutdown specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

CTS 3.7.4.2

12-13-91

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

3/4.7.4.2 SERVICE WATER SYSTEM – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.4.2 One service water loop (shared with Unit 2) shall be OPERABLE consisting of:

a. Two OPERABLE service water pumps (or auxiliary service water pumps) with their associated normal and emergency power supplies, and

b. An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir or, if using auxiliary service water pumps, to the North Anna reservoir.

APPLICABILITY: Both Units in MODES 5 or 6.

ACTION:

a. With only one service water pump OPERABLE, restore an additional service water pump to OPERABLE status within 12 hours or immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

b. With no service water pumps OPERABLE, immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

R.1

SURVEILLANCE REQUIREMENTS

4.7.4.2 At least one service water loop shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 6 months by measurement of the movement of the pump house and wing walls.

c. Each service water pump will be tested in accordance with Specification 4.0.5.

UNIT 2

CTS 3.7.4.2

12-13-91

PLANT SYSTEMS

3/4.7.4 SERVICE WATER SYSTEM

3/4.7.4.2 SERVICE WATER SYSTEM – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.4.2 One service water loop (shared with Unit 1) shall be OPERABLE consisting of:

a. Two OPERABLE service water pumps (or auxiliary service water pumps) with their associated normal and emergency power supplies, and

b. An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir or, if using auxiliary service pumps, to the North Anna reservoir.

APPLICABILITY: Both Units in MODES 5 or 6.

ACTION:

a. With only one service water pump OPERABLE, restore an additional service water pump to OPERABLE status within 12 hours or immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

b. With no service water pumps OPERABLE, immediately suspend all operations involving an increase in the reactor decay heat load or a reduction in boron concentration of the Reactor Coolant System.

R.1

SURVEILLANCE REQUIREMENTS

4.7.4.2 At least one service water loop shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 6 months by measurement of the movement of the pump house and wing walls.

c. Each service water pump will be tested in accordance with Specification 4.0.5.

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.4.2 states that one service water loop shall be OPERABLE when both units are in MODES 5 or 6. The Service Water (SW) System in MODES 5 or 6 is used to provide cooling water to various safety and nonsafety related systems. Its principal safety function is to cool the Recirculation Spray (RS) heat exchangers which are not required to be OPERABLE in MODES 5 or 6. It also provides cooling water to the Component Cooling Water system (which supports no accident loads), the main control room coolers, instrument air compressors, and charging pump gearbox coolers. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.4.2 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The SW System is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The SW System in MODES 5 and 6 does not meet criterion 1.

2. The SW System is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The SW System in MODES 5 and 6 does not meet criterion 2.

3. The SW System serves as a support system to various systems which are assumed to function to mitigate DBAs. If those systems are required to be OPERABLE in MODES 5 or 6, the SW System must be OPERABLE to support them. However, the SW System is not a structure, system, or component that is part of the primary success path and which functions to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Of the accidents evaluated in MODES 5 or 6, only one, the fuel handling accident, challenges the integrity of a fission product barrier. The SW System, and the systems supported by the SW System, are not part of the primary success path for mitigating a fuel handling accident. Therefore, the SW System in MODES 5 and 6 does not meet criterion 3.

4. The SW System in MODES 5 and 6 are not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. The SW System in MODES 5 and 6 was not evaluated in WCAP-11618. An evaluation performed by the

Company determined that the SW System in MODES 5 and 6, outside of its role to support systems which are required to be OPERABLE in MODES 5 and 6, is a non-significant risk contributor to core damage frequency and offsite releases. The SW System is not important for any scenarios modeled for MODES 5 and 6 in the North Anna site-specific PRAs. Therefore, SW System in MODES 5 and 6 does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the SW System - Shutdown LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The SW System - Shutdown specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

PLANT SYSTEMS

3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.5.1 The ultimate heat sinks shall be OPERABLE:

a. Service Water Reservoir with:

1. A minimum water level at or above elevation 313 Mean Sea Level, USGS datum, and

2. An average water temperature of ≤ 95°F as measured at the service water pump outlet.

b. The North Anna Reservoir with:

1. A minimum water level at or above elevation 244 Mean Sea Level, USGS datum, and

2. An average water temperature of ≤ 95°F as measured at the condenser inlet.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the requirements of the above specification not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHTUDOWN within the following 30 hours.

SURVEILLANCE REQUIRMENTS

4.7.5.1 The ultimate heat sinks shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits.

4.7.5.2 Data for calculating the leakage from the service water reservoir shall be obtained and recorded at least once per 6 months.

R.1

1 see ITS 3.7.9

R.1

see ITS 3.7.9

UNIT 2

CTS 3.7.5.1

8-21-80

PLANT SYSTEMS

3/4.7.5 ULTIMATE HEAT SINK

R.1

LIMITING CONDITION FOR OPERATION

3.7.5.1 The ultimate heat sinks shall be OPERABLE:

a. Service Water Reservoir with:

1. A minimum water level at or above elevation 313 Mean Sea Level, USGS datum, and
2. An average water temperature of less than or equal to 95°F as measured at the service water pump outlet.

<see ITS 3.7.9>

b. The North Anna Reservoir with:

1. A minimum water level at or above elevation 244 Mean Sea Level, USGS datum, and
2. An average water temperature of less than or equal to 95°F as measured at the condenser inlet.

APPLICABILITY: MODES 1, 2, 3 and 4.

R.1

ACTION:

With the requirements of the above specification not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.5.1 The ultimate heat sinks shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits.

4.7.5.2 Data for calculating the leakage from the service water reservoir shall be obtained and recorded at least once per 6 months.

<see ITS 3.7.9>

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.5.1.b states that one of the ultimate heat sinks that shall be OPERABLE is the North Anna Reservoir with a minimum water level at or above elevation 244 Mean Sea Level, USCG Datum, and average water temperature of ≤ 95° as measured at the condenser inlet. The North Anna Reservoir provides makeup to the Service Water Reservoir for 30 days after a Design Basis Accident (DBA) as necessary to maintain cooling water inventory, ensuring a continued cooling capability. The Service Water Reservoir is credited as the ultimate heat sink for the DBA. The Service Water Reservoir contains adequate water to provide at least 30 days of cooling to support simultaneous safe shutdown and cooldown of both units and their maintenance in a safe-shutdown condition. The Service Water Reservoir also provides sufficient cooling for at least 30 days in the event of an accident in one unit, to permit control of that accident and permit simultaneous safe shutdown and cooldown of the remaining unit and maintain them in a safe-shutdown condition. The North Anna Reservoir serves as a backup to the Service Water Reservoir. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.5.1.b does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The North Anna Reservoir is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The North Anna Reservoir does not meet criterion 1.

2. The North Anna Reservoir is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The North Anna Reservoir does not meet criterion 2.

3. The North Anna Reservoir is not a structure, system, or component that is part of the primary success path and which functions to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Therefore, the North Anna Reservoir does not meet criterion 3.

4. The North Anna Reservoir is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. The North Anna Reservoir was not evaluated in WCAP-11618. An evaluation performed by the Company determined that the North Anna Reservoir is a non-significant risk contributor

to core damage frequency and offsite releases. The North Anna Reservoir is not important for any scenarios modeled for the North Anna site-specific PRAs. Therefore, the North Anna Reservoir in MODES 5 and 6 does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the North Anna Reservoir LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The North Anna Reservoir specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

PLANT SYSTEMS

3/4.7.6 FLOOD PROTECTION

(R.1)

LIMITING CONDITION FOR OPERATION

3.7.6.1 Flood protection shall be provided for all safety related systems, components and structures when the water level of the North Anna Reservoir exceeds 256 feet Mean Sea Level USGS datum, at the main reservoir spillway.

APPLICABILITY: At all times

ACTION:

A. With the water level at the main reservoir spillway above elevation 252 feet Mean Sea Level USGS datum, close the sluice gate on the east end of the drain pipe through the flood protection dyke within 4 hours.

B. With the water level at the main reservoir spillway above elevation 256 feet Mean Sea Level USGS Datum:

1. Be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours, and
2. Initiate and complete within 36 hours, the following flood protection measures:
   a) Stop the circulating water pumps, and
   b) Close the condenser isolation valves.

SURVEILLANCE REQUIREMENTS

4.7.6.1 The water level at the main reservoir spillway shall be determined to be within the limits by:

A. Measurement at least once per 8 hours when the water level is below elevation 251 feet Mean Sea Level USGS datum.

B. Measurement at least once per 2 hours when the water level is equal to or above 251 feet Mean Sea Level USGS datum.

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PLANT SYSTEMS

3/4.7.6 FLOOD PROTECTION

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LIMITING CONDITION FOR OPERATION

3.7.6.1 Flood protection shall be provided for all safety related systems, components and structures when the water level of the North Anna Reservoir exceeds 256 feet Mean Sea Level USGS datum, at the main reservoir spillway.

APPLICABILITY: At all times

ACTION:

A. With the water level at the main reservoir spillway above elevation 252 feet Mean Sea Level USGS datum, close the sluice gate on the east end of the drain pipe through the flood protection dyke within 4 hours.

B. With the water level at the main reservoir spillway above elevation 256 feet Mean Sea Level USGS Datum:

1. Be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours, and
2. Initiate and complete within 36 hours, the following flood protection measures:
   a) Stop the circulating water pumps, and
   b) Close the condenser isolation valves.

SURVEILLANCE REQUIREMENTS

4.7.6.1 The water level at the main reservoir spillway shall be determined to be within the limits by:

A. Measurement at least once per 8 hours when the water level is below elevation 251 feet Mean Sea Level USGS datum.

B. Measurement at least once per 2 hours when the water level is equal to or above 251 feet Mean Sea Level USGS datum.

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.6.1 states the maximum elevation of the North Anna Reservoir. If this limit is exceeded, flood control measures are required to protect safety related equipment. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.6.1 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. Flood Protection is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Flood Protection does not meet criterion 1.

2. Flood Protection is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Flood Protection does not meet criterion 2.

3. Flood Protection is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Flood Protection does not meet criterion 3.

4. Flood Protection is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. As discussed in Section 4.0, (Appendix A, page A-56) of WCAP-11618, Flood Protection was found to be a non-significant risk contributor to core damage frequency and offsite releases. The Company has reviewed this evaluation, considers it applicable to the North Anna Power Station, and concurs with this assessment. Flood Protection is not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. Flood Protection does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Flood Protection LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. Flood Protection specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as a relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

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PLANT SYSTEMS

3/4.7.10 SNUBBERS

LIMITING CONDITIONS FOR OPERATION

3.7.10 All snubbers utilized on safety related systems shall be OPERABLE. For those snubbers utilized on non-safety related systems, each snubber shall be OPERABLE if a failure of that snubber or the failure of the non-safety related system would have an adverse effect on any safety related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES).

ACTION: With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.10.c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

(R.1)

4.7.10 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

NOTE: As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

a. Visual Inspection

Snubbers are categorized as accessible or inaccessible during reactor operation. Each of the categories (accessible and inaccessible) may be inspected independently according to the schedule determined by the following table and the visual inspection interval for each type of snubber shall be determined based upon the criteria provided in that table.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.a (continued)

SNUBBER VISUAL INSPECTION INTERVAL

	NUMBER OF UNACCEPTABLE SNUBBERS		
Population or Category (Notes 1 and 2)	Column A Extend Interval (Notes 3 and 4)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or more	29	56	109

R.1

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers are categorized, based on their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must decide upon that categorization and document that decision before any inspection and shall use that decision as the basis for determining the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. If the results of the interpolation is a fractional value, round off the results to the next lower integer to establish the applicable number of unacceptable snubbers for each column.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.a (continued)

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

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b. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional, and (4) in those locations where snubber movement can be manually induced without disconnecting the snubber, that the snubber has freedom of movement and is not frozen up.

Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers, irrespective of type, that may be generically susceptible, and (2) the affected snubber shall be functionally tested in the as found condition and determined OPERABLE per Specification 4.7.10.d and 4.7.10.e.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.b (continued)

All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next visual inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

When hydraulic snubbers which have uncovered fluid ports are tested for operability, the test shall be performed by starting with the piston at the as-found setting and extending the piston rod in the tension mode direction. Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.10.c that failures are subject to an engineering evaluation of component structural integrity has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

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c. Functional Tests

At least once per 18 months during shutdown, a representative sample of small bore snubbers which follows the expression $35[1+c/2]$, where $c=2$ is the allowable number of small bore snubbers not meeting the acceptance criteria selected by the operator, shall be functionally tested either in-place or in a bench test. For each number of small bore snubbers above "c" which does not meet the functional test acceptance criteria for Specification 4.7.10.d or 4.7.10.e, an additional sample selected according to the expression $35(1+c/2)(2/(c+1))^2(a-c)$ shall be functionally tested, where "a" is a total number of small bore snubbers found inoperable during the functional testing or the representative sample.

Functional testing shall continue according to the expression $b[35(1+c/2)(2/(c+1))^2]$ where "b" is the number of snubbers found inoperable in the previous re-sample, until no additional inoperable snubbers are found within a sample or until all small bore snubbers have been functionally tested.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

At least once per 18 months during shutdown, 10% of the large bore snubbers (snubbers greater than 50 kips) shall be functionally tested either in place, in a full snubber bench test, or in a snubber valve block bench test. For each large bore snubber that does not meet the functional test acceptance criteria of Specification 4.7.10.d, an engineering evaluation is required to determine the failure mode. If the failure is determined to be generic, an additional 10% of that type of snubber shall be functionally tested. If the failure is determined to be non-generic, an additional 10% of that type of snubber will be tested during the next functional test period.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle.
2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.).
3. Snubbers within 10 feet of the discharge from a safety relief valve.

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Snubbers that are "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative samples.* Accessible and inaccessible snubbers may be used jointly or separately as the basis for the sampling plan.

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

*Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the design service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

(R1)

e. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. Drag force shall not have increased more than 50% since the last functional test.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Snubber Service Life Monitoring

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

At least once per 18 months, the installation and maintenance records for each snubber defined in 3.7.10 shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be re-evaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This re-evaluation, replacement or reconditioning shall be indicated in the records.

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UNIT 2

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PLANT SYSTEMS

3/4.7.10 SNUBBERS

LIMITING CONDITIONS FOR OPERATION

3.7.10 All snubbers utilized on safety related systems shall be OPERABLE. For those snubbers utilized on non-safety related systems, each snubber shall be OPERABLE if a failure of that snubber or the failure of the non-safety related system would have an adverse effect on any safety related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES).

ACTION: With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.10.c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

(R1)

SURVEILLANCE REQUIREMENTS

4.7.10 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

NOTE: As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

a. Visual Inspection

Snubbers are categorized as accessible or inaccessible during reactor operation. Each of the categories (accessible and inaccessible) may be inspected independently according to the schedule determined by the following table and the visual inspection interval for each type of snubber shall be determined based upon the criteria provided in that table.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.a (continued)

SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS Column A Extend Interval (Notes 3 and 4)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or more	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers are categorized, based on their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must decide upon that categorization and document that decision before any inspection and shall use that decision as the basis for determining the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. If the results of the interpolation is a fractional value, round off the results to the next lower integer to establish the applicable number of unacceptable snubbers for each column.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.a (continued)

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

(R.1)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional, and (4) in those locations where snubber movement can be manually induced without disconnecting the snubber, that the snubber has freedom of movement and is not frozen up.

Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers, irrespective of type, that may be generically susceptible, and (2) the affected snubber shall be functionally tested in the as found condition and determined OPERABLE per Specification 4.7.10.d and 4.7.10.e.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.7.10.b (continued)

All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next visual inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

When hydraulic snubbers which have uncovered fluid ports are tested for operability, the test shall be performed by starting with the piston at the as-found setting and extending the piston rod in the tension mode direction. Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.10.c that failures are subject to an engineering evaluation of component structural integrity has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

c. Functional Tests

(R1)

At least once per 18 months during shutdown, a representative sample of small bore snubbers which follows the expression $35[1+c/2]$, where $c=2$ is the allowable number of small bore snubbers not meeting the acceptance criteria selected by the operator, shall be functionally tested either in-place or in a bench test. For each number of small bore snubbers above "c" which does not meet the functional test acceptance criteria for Specification 4.7.10.d or 4.7.10.e, an additional sample selected according to the expression $35(1+c/2)(2/(c+1))^2(a-c)$ shall be functionally tested, where "a" is a total number of small bore snubbers found inoperable during the functional testing or the representative sample.

Functional testing shall continue according to the expression $b[35(1+c/2)(2/(c+1))^2]$ where "b" is the number of snubbers found inoperable in the previous re-sample, until no additional inoperable snubbers are found within a sample or until all small bore snubbers have been functionally tested.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

At least once per 18 months during shutdown, 10% of the large bore snubbers (snubbers greater than 50 kips) shall be functionally tested either in place, in a full snubber bench test, or in a snubber valve block bench test. For each large bore snubber that does not meet the functional test acceptance criteria of Specification 4.7.10.d, an engineering evaluation is required to determine the failure mode. If the failure is determined to be generic, an additional 10% of that type of snubber shall be functionally tested. If the failure is determined to be non-generic, an additional 10% of that type of snubber will be tested during the next functional test period.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle.
2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.).
3. Snubbers within 10 feet of the discharge from a safety relief valve.

Snubbers that are "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative samples.* Accessible and inaccessible snubbers may be used jointly or separately as the basis for the sampling plan.

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included in the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

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*Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the design service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

e. Mechanical Snubbers Functional Test Acceptance Criteria

(R.1)

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. Drag force shall not have increased more than 50% since the last functional test.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Snubber Service Life Monitoring

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

At least once per 18 months thereafter, the installation and maintenance records for each snubber defined in 3.7.10 shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be re-evaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement or reconditioning shall be indicated in the records. |

R.1

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.10 states that snubbers shall be OPERABLE. The OPERABILITY of snubbers ensures that the Reactor Coolant System and other safety related fluid systems are adequately restrained and supported during an earthquake and are free to expand and contract during normal operation as the system temperature changes. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.10 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. Snubbers are not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Snubbers do not meet criterion 1.

2. Snubbers are not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Snubbers do not meet criterion 2.

3. Snubbers are not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Snubbers do not meet criterion 3.

4. Snubbers are not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. As discussed in Section 4.0, (Appendix A, page A-57) of WCAP-11618, Snubbers were found to be a non-significant risk contributor to core damage frequency and offsite releases. The Company has reviewed this evaluation, considers it applicable to the North Anna Power Station, and concurs with this assessment. Snubbers are not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. Snubbers does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Snubbers LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. Snubbers specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as a relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

(R.1)

12-28-79

PLANT SYSTEMS

3/4.7.11 SEALED SOURCE CONTAMINATION

LIMITING CONDITION FOR OPERATION

3.7.11.1 Each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material, shall be free of greater than or equal to 0.005 microcuries of removable contamination.

APPLICABILITY: At all times.

ACTION:

a. Each sealed source with removable contamination in excess of the above limits shall be immediately withdrawn from use and:

1. Either decontaminated and repaired, or

2. Disposed of in accordance with Commission Regulations.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.11.1.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

a. The licensee, or

b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.11.1.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

a. Sources in use - At least once per six months for all sealed sources containing radioactive materials.

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PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. With a half-life greater than 30 days (excluding Hydrogen 3), and

2. In any form other than gas.

b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.

c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source.

4.7.11.1.3 Reports - A Special Report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage tests reveal the presence of $\geq$ 0.005 microcuries of removable contamination.

UNIT 2

CTS 3.7.11.1

(R.1)

8-21-80

PLANT SYSTEMS

3/4.7.11 SEALED SOURCE CONTAMINATION

LIMITING CONDITION FOR OPERATION

3.7.11.1 Each sealed source containing radioactive material either in excess of 100 microcuiries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material, shall be free of greater than or equal to 0.005 microcuries of removable contamination.

APPLICABILITY: At all times.

ACTION:

a. With a sealed source having removable contamination in excess of the above limits, immediately withdraw the sealed source from use and:

   1. Either decontaminate and repair the sealed source, or

   2. Dispose of the sealed source in accordance with Commission Regulations.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.11.1.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

a. The licensee, or

b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.11.1.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

a. Sources in use - At least once per six months for all sealed sources containing radioactive material:

(R.1)

8-21-80

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. With a half-life greater than 30 days (excluding Hydrogen 3), and

2. In any form other than gas.

b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.

c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source.

4.7.11.1.3 Reports - A Special Report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage tests reveal the presence of greater than or equal to 0.005 microcuries of removable contamination.

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.11.1 states each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting materials or 5 microcuries of alpha emitting material, shall be free of greater than or equal to 0.005 microcuries of removable contamination. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.11.1 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. Sealed Source Contamination is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Sealed Source Contamination does not meet criterion 1.

2. Sealed Source Contamination is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Sealed Source Contamination does not meet criterion 2.

3. Sealed Source Contamination is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Sealed Source Contamination is not assumed to function during a DBA or transient. Sealed Source Contamination does not meet criterion 3.

4. Sealed Source Contamination is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. As discussed in Section 3.0, (page 3-186) of WCAP-11618, the Leakage Testing of Sealed Source Contamination was found to be a non-significant risk contributor to core damage frequency and offsite releases. The Company has reviewed this evaluation, considers it applicable to the North Anna Power Station, and concurs with this assessment. The Leakage Testing of Sealed Source Contamination is not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. The Leakage Testing of Miscellaneous Radioactive Materials Sources do not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Sealed Source Contamination LCO and associated Applicability, Actions, and Surveillances may be

relocated out of the Technical Specifications. The Sealed Source Contamination specification will be relocated to the TRM. Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

CTS 3.7.12.1

10-5-92

PLANT SYSTEMS

(R.1)

3/4.7.12 SETTLEMENT OF CLASS 1 STRUCTURES

LIMITING CONDITION FOR OPERATION

3.7.12.1 The total settlement of each Class 1 structure or the differential settlement between Class 1 structures shall not exceed the allowable values of Table 3.7-5.

APPLICABILITY: ALL MODES

ACTION:

a. With either the total settlement of any structure or the differential settlement of any structures exceeding 75 percent of the allowable settlement, conduct an engineering review of field conditions and evaluate the consequences of additional settlement. Submit a special report to the Commission pursuant to Specification 6.9.2 within 60 days, containing the results of the investigation, the evaluation of existing and possible continued settlement and the remedial action to be taken if any, including the date of the next survey.

b. With the total settlement of any structure or the differential settlement of any two structures exceeding the allowable settlement value of Table 3.7-5, be in at least HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.12.1 The total settlement of each Class 1 structure or the differential settlement between Class 1 structures listed in Table 3.7-5 shall be determined by measurement and calculation at least once per 6 months. The accuracy of the measurements shall be in accordance with second-order Class II accuracy as defined by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey, 1974.

TABLE 3.7-5

ALLOWABLE TOTAL SETTLEMENT OR DIFFERENTIAL SETTLEMENT FOR CLASS 1 STRUCTURES

ITEM NO.	SETTLEMENT POINT	STRUCTURE	SETTLEMENT POINT	STRUCTURE/COMPONENT	ALLOWABLE TOTAL SETTLEMENT (FEET)	ALLOWABLE DIFFERENTIAL SETTLEMENT (FEET)
1	7 or 10	Service Water Pump House	17, 18	North Side of Expansion Joint Service Water Piping at SWPH	N/A	0.220 from 7/77
2	117	*Service Building (E-14)	113	Unit 2 Main Steam Valve House	N/A	0.047 from 7/77
3	17, 18	North Side of Expansion Joint Service Water Piping at SWPH			0.660 from 8/78	N/A
4	114	Service Building (E-17)			0.146 from 5/76	N/A
5	25, 26, 27, 28	Service Water Valve House			0.320 from 4/87	N/A
6	29, 30 31, 32	Service Water Tie-in Vault			0.120 from 4/87	N/A

* Critical differential settlement is downward movement of Point 117 with respect to Point 113.

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CTS 3.7.12.1

R.1

UNIT 2

CTS 3.7.12.1

10-5-92

R.1

PLANT SYSTEMS

3/4.7.12 SETTLEMENT OF CLASS 1 STRUCTURES

LIMITING CONDITION FOR OPERATION

3.7.12.1 The total settlement of each Class 1 structure or the differential settlement between Class 1 structures shall not exceed the allowable values of Table 3.7-5.

APPLICABILITY: ALL MODES

ACTION:

a. With either the total settlement of any structure or the differential settlement of any structures exceeding 75 percent of the allowable settlement, conduct an engineering review of field conditions and evaluate the consequences of additional settlement. Submit a special report to the Commission pursuant to Specification 6.9.2 within 60 days, containing the results of the investigation, the evaluation of existing and possible continued settlement and the remedial action to be taken if any, including the date of the next survey.

b. With the total settlement of any structure or the differential settlement of any two structures exceeding the allowable settlement value of Table 3.7-5, be in at least HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.12.1 The total settlement of each Class 1 structure or the differential settlement between Class 1 structures listed in Table 3.7-5 shall be by measurement and calculation at least once per 6 months. The accuracy of the measurement shall be in accordance with second-order Class II accuracy as defined by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey, 1974.

TABLE 3.7-5

ALLOWABLE TOTAL SETTLEMENT OR DIFFERENTIAL SETTLEMENT FOR CLASS 1 STRUCTURES

ITEM NO.	SETTLEMENT POINT	STRUCTURE	SETTLEMENT POINT	STRUCTURE/COMPONENT	ALLOWABLE TOTAL SETTLEMENT (FEET)	ALLOWABLE DIFFERENTIAL SETTLEMENT (FEET)
1	117	*Service Building (E-14)	113	Unit 2 Main Steam Valve House	N/A	0.047 from 7/77
2	7 or 10	Service Water Pump House	17,18	Service Water Piping at SWPH North Side of Expansion Joint	N/A	0.220 from 7/77
3	17, 18	Service Water Piping at SWPH North Side of Expansion Joint			0.660 from 8/78	N/A
4	116	**Service Building (E-15)			0.167 from 5/76	N/A
5	114	Service Building (E-17)			0.146 from 5/76	N/A
6	25,26, 27,28	Service Water Valve House			0.320 from 4/87	N/A
7	29,30, 31,32	Service Water Tie-in Vault			0.120 from 4/87	N/A

* Critical differential settlement is downward movement of Point 117 with respect to Point 113.

** Critical total settlement is downward movement of point 116 with respect to Unit 2 containment which is rock-founded.

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CTS 3.7.12.1

R-1

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.12.1 and Table 3.7-5 provide limits on the total and differential settlement of Class 1 structures. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.12.1 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. Settlement of Class 1 structures is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Settlement of Class 1 structures does not meet criterion 1.

2. Settlement of Class 1 structures is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Settlement of Class 1 structures does not meet criterion 2.

3. Settlement of Class 1 structures is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Settlement of Class 1 structures does not meet criterion 3.

4. Settlement of Class 1 structures not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Settlement of Class 1 structures was not evaluated in WCAP-11618. An evaluation performed by the Company determined that settlement of Class 1 structures is a non-significant risk contributor to core damage frequency and offsite releases. The settlement of Class 1 structures specification is not important for any scenarios modeled in the North Anna Power Station site-specific PRAs. Settlement of Class 1 structures does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Settlement of Class 1 Structures LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The Settlement of Class 1 Structures specification will be relocated to the TRM. Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

UNIT 1

PLANT SYSTEMS

3/4.7.13 GROUNDWATER LEVEL – SERVICE WATER RESERVOIR

LIMITING CONDITION FOR OPERATION

3.7.13 The groundwater level of the service water reservoir (shared by Units 1 and 2) shall not exceed the elevation at the locations listed in Table 3.7-6. The flow of groundwater from the drains beneath the pumphouse shall not exceed the values given in Table 3.7-6.

APPLICABILITY: ALL MODES.

ACTION:

a. With the groundwater level of the service water reservoir or the groundwater flow rate exceeding any of the limits of Table 3.7-6, an engineering evaluation shall be performed by a Licensed Civil Engineer to determine the cause of the high ground water or flow rates and the influence on the stability of the service water reservoir and pumphouse. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days, containing the results of the evaluation and any corrective action determined to be necessary.

b. With the inability to obtain at least one measurement from each of the locations listed in SR 4.7.13.1, an engineering evaluation shall be performed by a Licensed Civil Engineer to determine the consequences of not meeting SR 4.7.13.1. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days, containing the results of the evaluation and any corrective action determined to be necessary.

(R.1)

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.13.1 At least once per six months verify the groundwater level within the dike of the service water reservoir does not exceed the value established in Table 3.7-6. The groundwater level shall be determined by measurement from each zone. At a minimum, at least one measurement shall be made at each zone listed below and the measurement shall be within the limits presented in Table 3.7-6:

Zone 1 - service water pump house (Device Nos. 11, 14, or 20)

Zone 2 - southeast end of the reservoir (Device Nos. 10, 15, 21, or 22)

Zone 3 - service water valve house (Device Nos. 18 or 19)

4.7.13.2 At least once per six months verify that the groundwater flow rate does not exceed the value established in Table 3.7-6. The groundwater flow rate shall be determined by measurements at the drain outlet gallery. A visual inspection of the clarity of the outflow from each drain shall be performed in conjunction with the flow monitoring effort.

TABLE 3.7-6

SERVICE WATER RESERVOIR - ALLOWABLE GROUNDWATER LEVELS

ZONE	MEASUREMENT LOCATION	ALLOWABLE GROUNDWATER ELEVATION (Mean Sea Level in feet)
1. Service Water Pump House [Units 1 & 2]	Crest (Device Nos. 11, 14, or 20)	280
2. Southeast corner of the SW Reservoir	a. Crest (Device Nos. 15, 21 or 22)	295
	b. Toe (Device No. 10)	280
3. Service Water Valve House [Units 1 & 2]	Crest (Device No. 18 or 19)	295

R.1

SERVICE WATER RESERVOIR - ALLOWABLE DRAIN FLOW RATE

DRAIN OUTLETS	LOCATION	FLOW RATE
1 through 6	Drainage Gallery	Total Flow Rates shall not exceed 8.5 gallons per minute

UNIT 2

CTS 3.7.13

12-29-99

PLANT SYSTEMS

3/4.7.13 GROUNDWATER LEVEL – SERVICE WATER RESERVOIR

LIMITING CONDITION FOR OPERATION

3.7.13 The groundwater level of the service water reservoir (shared by Units 1 and 2) shall not exceed the elevation at the locations listed in Table 3.7-6. The flow of groundwater from the drains beneath the pumphouse shall not exceed the values given in Table 3.7-6.

APPLICABILITY: ALL MODES.

ACTION:

a. With the groundwater level of the service water reservoir or the groundwater flow rate exceeding any of the limits of Table 3.7-6, an engineering evaluation shall be performed by a Licensed Civil Engineer to determine the cause of the high ground water or flow rates and the influence on the stability of the service water reservoir and pumphouse. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days, containing the results of the evaluation and any corrective action determined to be necessary.

(R.1)

b. With the inability to obtain at least one measurement from each of the locations listed in SR 4.7.13.1, an engineering evaluation shall be performed by a Licensed Civil Engineer to determine the consequences of not meeting SR 4.7.13.1. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days, containing the results of the evaluation and any corrective action determined to be necessary.

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.13.1 At least once per six months verify the groundwater level within the dike of the service water reservoir does not exceed the value established in Table 3.7-6. The groundwater level shall be determined by measurement from each zone. At a minimum, at least one measurement shall be made at each zone listed below and the measurement shall be within the limits presented in Table 3.7-6:

Zone 1 - service water pump house (Device Nos. 11, 14, or 20)

Zone 2 - southeast end of the reservoir (Device Nos. 10, 15, 21, or 22)

Zone 3 - service water valve house (Device Nos. 18 or 19)

4.7.13.2 At least once per six months verify that the groundwater flow rate does not exceed the value established in Table 3.7-6. The groundwater flow rate shall be determined by measurements at the drain outlet gallery. A visual inspection of the clarity of the outflow from each drain shall be performed in conjunction with the flow monitoring effort.

CTS 3.7.13

TABLE 3.7-6

SERVICE WATER RESERVOIR - ALLOWABLE GROUNDWATER LEVELS

ZONE	MEASUREMENT LOCATION	ALLOWABLE GROUNDWATER ELEVATION (Mean Sea Level in feet)
1. Service Water Pump House [Units 1 & 2]	Crest (Device Nos. 11, 14, or 20)	280
2. Southeast corner of the SW Reservoir	a. Crest (Device Nos. 15, 21 or 22)	295
	b. Toe (Device No. 10)	280
3. Service Water Valve House [Units 1 & 2]	Crest (Device No. 18 or 19)	295

R.1

SERVICE WATER RESERVOIR - ALLOWABLE DRAIN FLOW RATE

DRAIN OUTLETS	LOCATION	FLOW RATE
1 through 6	Drainage Gallery	Total Flow Rates shall not exceed 8.5 gallons per minute

RELOCATED SPECIFICATIONS

R.1 CTS 3.7.13 requires periodic measurement of the groundwater level at locations around the Service Water Reservoir. The groundwater level of the Service Water Reservoir is used to monitor long-term performance of the Service Water Reservoir dike. Failure to meet the requirements of the LCO does not result in the inoperability of the Service Water System. The ACTIONS direct that evaluations be performed to determine cause and consequences of the high groundwater level. This LCO does not meet the criteria for retention in the ITS; therefore, it will be retained in the Technical Requirements Manual.

This change is acceptable because CTS 3.7.13 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The groundwater level of the Service Water Reservoir is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The groundwater level of the Service Water Reservoir does not meet criterion 1.

2. The groundwater level of the Service Water Reservoir is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The groundwater level of the Service Water Reservoir does not meet criterion 2.

3. The groundwater level of the Service Water Reservoir is not a structure, system, or component that is part of the primary success path and which functions to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The groundwater level of the Service Water Reservoir does not meet criterion 3.

4. The groundwater level of the Service Water Reservoir is not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. The groundwater level of the Service Water Reservoir was not evaluated in WCAP-11618. An evaluation performed by the Company determined that the groundwater level of the Service Water Reservoir is a non-significant risk contributor to core damage frequency and offsite releases. The groundwater level of the Service Water Reservoir does not meet criterion 4.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Groundwater Level - Service Water Reservoir LCO and associated Applicability, Actions, and Surveillances may be relocated out of the Technical Specifications. The Groundwater Level - Service Water Reservoir specification will be relocated to the Technical Requirements Manual (TRM). Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the LCO did not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

SECTION 3.7 - PLANT SYSTEMS

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATIONS

GENERIC NSHCs

10 CFR 50.92 EVALUATION
FOR
ADMINISTRATIVE CHANGES

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve reformatting, renumbering, and rewording of Technical Specifications with no change in intent. These changes, since they do not involve technical changes to the Technical Specifications, are administrative.

This type of change is connected with the movement of requirements within the current requirements, or with the modification of wording that does not affect the technical content of the current Technical Specifications. These changes will also include nontechnical modifications of requirements to conform to the Writer's Guide or provide consistency with the Improved Standard Technical Specifications in NUREG-1431. Administrative changes are not intended to add, delete, or relocate any technical requirements of the current Technical Specifications.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change involves reformatting, renumbering, and rewording the existing Technical Specifications. The reformatting, renumbering, and rewording process involves no technical changes to the existing Technical Specifications. As such, this change is administrative in nature and does not affect initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no effect on any safety analyses assumptions. This change is administrative in nature. Therefore, the change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
MORE RESTRICTIVE CHANGES

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve adding more restrictive requirements to the existing Technical Specifications by either making current requirements more stringent or by adding new requirements that currently do not exist.

These changes include additional commitments that decrease allowed outage times, increase the frequency of surveillances, impose additional surveillances, increase the scope of specifications to include additional plant equipment, increase the applicability of specifications, or provide additional actions. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change provides more stringent requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter assumptions relative to mitigation of an accident or transient event. The more restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with the assumptions in the safety analyses and licensing basis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The imposition of more restrictive requirements either has no effect on or increases the margin of plant safety. As provided in the discussion of change, each change in this category is, by definition, providing additional restrictions to enhance plant safety. The change maintains requirements within the safety analyses and licensing basis. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
RELOCATED SPECIFICATIONS

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve relocating existing Technical Specification LCOs to licensee controlled documents.

The the Company has evaluated the current Technical Specifications using the criteria set forth in 10 CFR 50.36. Specifications identified by this evaluation that did not meet the retention requirements specified in the regulation are not included in the Improved Technical Specifications (ITS) submittal. These specifications have been relocated from the current Technical Specifications to the Technical Requirements Manual.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change relocates requirements and surveillances for structures, systems, components or variables that do not meet the criteria of 10 CFR 50.36 (c)(2)(ii) for inclusion in Technical Specifications as identified in the Application of Selection Criteria to the North Anna Technical Specifications. The affected structures, systems, components or variables are not assumed to be initiators of analyzed events and are not assumed to mitigate accident or transient events. The requirements and surveillances for these affected structures, systems, components or variables will be relocated from the Technical Specifications to the Technical Requirements Manual, which will be maintained pursuant to 10 CFR 50.59. In addition, the affected structures, systems, components or variables are addressed in existing surveillance procedures which are also controlled by 10 CFR.50.59 and subject to the change control provisions imposed by plant administrative procedures, which endorse applicable regulations and standards. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or change in the methods governing normal plant operation. The proposed change will not impose or eliminate any requirements and adequate control of existing requirements will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed change will not reduce a margin of safety because it has no significant effect on any safety analyses assumptions, as indicated by the fact that the requirements do not meet the 10 CFR 50.36 criteria for retention. In addition, the relocated requirements are moved without change and any future changes to these requirements will be evaluated per 10 CFR 50.59.

NRC prior review and approval of changes to these relocated requirements, in accordance with 10 CFR 50.92, will no longer be required. This review and approval does not provide a specific margin of safety which can be evaluated. However, since the proposed change is consistent with the Westinghouse Standard Technical Specifications, NUREG-1431 issued by the NRC, revising the Technical Specifications to reflect the approved level of detail gives assurance that this relocation does not result in a significant reduction in the margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES - REMOVED DETAIL

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve moving details out of the Technical Specifications and into the Technical Specifications Bases, the UFSAR, the TRM or other documents under regulatory control such as the Quality Assurance Program Topical Report. The removal of this information is considered to be less restrictive because it is no longer controlled by the Technical Specification change process. Typically, the information moved is descriptive in nature and its removal conforms with NUREG-1431 for format and content.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change relocates certain details from the Technical Specifications to other documents under regulatory control. The Bases, UFSAR, and Technical Requirement Manual will be maintained in accordance with 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specification Bases are subject to the change control provisions in the Administrative Controls Chapter of the Technical Specifications. The UFSAR is subject to the change control provisions of 10 CFR 50.71(e). Other documents are subject to controls imposed by Technical Specifications or regulations. Since any changes to these documents will be evaluated, no significant increase in the probability or consequences of an accident previously evaluated will be allowed. Therefore this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operations. The proposed change will not impose or eliminate any requirements, and adequate control of the information will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in a margin of safety?**

   The proposed change will not reduce a margin of safety because it has no effect on any safety analysis assumptions. In addition, the details to be moved from the Technical Specifications to other documents are not being changed. Since any future changes to these details will be evaluated under the applicable regulatory change control mechanism,

no significant reduction in a margin of safety will be allowed. A significant reduction in the margin of safety is not associated with the elimination of the 10 CFR 50.92 requirement for NRC review and approval of future changes to the relocated details. The proposed change is consistent with the Westinghouse Standard Technical Specifications, NUREG-1431, issued by the NRC Staff, revising the Technical Specifications to reflect the approved level of detail, which indicates that there is no significant reduction in the margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 1
RELAXATION OF LCO REQUIREMENTS

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve relaxation of the current Technical Specification (CTS) Limiting Conditions for Operation (LCOs) by the elimination of specific items from the LCO or Tables referenced in the LCO, or the addition of exceptions to the LCO.

These changes reflect the ISTS approach to provide LCO requirements that specify the protective conditions that are required to meet safety analysis assumptions for required features. These conditions replace the lists of specific devices used in the CTS to describe the requirements needed to meet the safety analysis assumptions. The ITS also includes LCO Notes which allow exceptions to the LCO for the performance of testing or other operational needs. The ITS provides the protection required by the safety analysis and provides flexibility for meeting the conditions without adversely affecting operations since equivalent features are required to be OPERABLE. The ITS is also consistent with the plant current licensing basis, as may be modified in the discussion of individual changes. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change provides less restrictive LCO requirements for operation of the facility. These less restrictive LCO requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter assumptions relative to mitigation of an accident or transient event in that the requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the current safety analyses and licensing basis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The proposed change does impose different requirements. However, the change is consistent with the assumptions in the current safety analyses and licensing basis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The imposition of less restrictive LCO requirements does not involve a significant reduction in the margin of safety. As provided in the discussion of change, this change has been evaluated to ensure that the current safety analyses and licensing basis requirements are maintained. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 2
RELAXATION OF APPLICABILITY

The North Anna Nuclear Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve relaxation of the applicability of current Technical Specification (CTS) Limiting Conditions for Operation (LCOs) by reducing the conditions under which the LCO requirements must be met.

Reactor operating conditions are used in CTS to define when the LCO features are required to be OPERABLE. CTS Applicabilities can be specific defined terms of reactor conditions or more general such as, "all MODES" or "any operating MODE." Generalized applicability conditions are not contained in ITS, therefore the ITS eliminates CTS requirements such as "all MODES" or "any operating MODE," replacing them with ITS defined MODES or applicable conditions that are consistent with the application of the plant safety analysis assumptions for operability of the required features.

CTS requirements may also be eliminated during conditions for which the safety function of the specified safety system is met because the feature is performing its intended safety function. Deleting applicability requirements that are indeterminate or which are inconsistent with application of accident analyses assumptions is acceptable because when LCOs cannot be met, the TS may be satisfied by exiting the applicability which takes the plant out of the conditions that require the safety system to be OPERABLE.

This change provides the protection required by the safety analysis and provides flexibility for meeting limits by restricting the application of the limits to the conditions assumed in the safety analyses. The ITS is also consistent with the plant current licensing basis, as may be modified in the discussion of individual changes. The change is generally made to conform with NUREG-1431 and has been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change relaxes the conditions under which the LCO requirements for operation of the facility must be met. These less restrictive applicability requirements for the LCOs do not result in operation that will increase the probability of initiating an analyzed event and do not alter assumptions relative to mitigation of an accident or transient event in that the requirements continue to ensure that process variables, structures, systems, and components are maintained in the MODES and other specified conditions assumed in the safety analyses and licensing basis. Therefore, this change

does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The proposed change does impose different requirements. However, the requirements are consistent with the assumptions in the safety analyses and licensing basis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in a margin of safety?**

The relaxed applicability of LCO requirements does not involve a significant reduction in the margin of safety. As provided in the discussion of change, this change has been evaluated to ensure that the LCO requirements are applied in the MODES and specified conditions assumed in the safety analyses and licensing basis. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 3
RELAXATION OF COMPLETION TIME

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve relaxation of the Completion Times for Required Actions in the current Technical Specifications (CTS).

Upon discovery of a failure to meet an LCO, the ITS specifies times for completing Required Actions of the associated TS Conditions. Required Actions of the associated Conditions are used to establish remedial measures that must be taken within specified Completion Times (referred to as Allowed Outage Times (AOTs) in the CTS). These times define limits during which operation in a degraded condition is permitted. Adopting Completion Times from the ITS is acceptable because the Completion Times take into account 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. In addition, the ITS provides consistent Completion Times for similar conditions. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change relaxes the Completion Time for a Required Action. Required Actions and their associated Completion Times are not initiating conditions for any accident previously evaluated and the accident analyses do not assume that required equipment is out of service prior to the analyzed event. Consequently, the relaxed Completion Time does not significantly increase the probability of any accident previously evaluated. The consequences of an analyzed accident during the relaxed Completion Time are the same as the consequences during the existing AOT. As a result, the consequences of any accident previously evaluated are not significantly increased. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the method governing normal plant operation. The Required Actions and associated Completion Times in the ITS have been evaluated to ensure that no new accident initiators are introduced. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed Completion Time for a Required Action does not involve a significant reduction in the margin of safety. As provided in the discussion of change, the change has been evaluated to ensure that the allowed 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 repair period. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 4
RELAXATION OF REQUIRED ACTION

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve relaxation of the Required Actions in the current Technical Specifications (CTS).

Upon discovery of a failure to meet an LCO, the ITS specifies Required Actions to complete for the associated Conditions. Required Actions of the associated Conditions are used to establish remedial measures that must be taken in response to the degraded conditions. These actions minimize the risk associated with continued operation while providing time to repair inoperable features. Some of the Required Actions are modified to place the plant in a MODE in which the LCO does not apply. Adopting Required Actions from the ISTS is acceptable because the Required Actions take into account the operability status of redundant systems of required features, the capacity and capability of the remaining features, and the compensatory attributes of the Required Actions as compared to the LCO requirements. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change relaxes Required Actions. Required Actions and their associated Completion Times are not initiating conditions for any accident previously evaluated and the accident analyses do not assume that required equipment is out of service prior to the analyzed event. Consequently, the relaxed Required Actions do not significantly increase the probability of any accident previously evaluated. The Required Actions in the ITS have been developed to provide appropriate remedial actions to be taken in response to the degraded condition considering the operability status of the redundant systems of required features, and the capacity and capability of remaining features while minimizing the risk associated with continued operation. As a result, the consequences of any accident previously evaluated are not significantly increased. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The Required Actions and associated Completion Times in the ITS have been evaluated to ensure that no new accident initiators are introduced. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed Required Actions do not involve a significant reduction in the margin of safety. As provided in the discussion of change, this change has been evaluated to minimize the risk of continued 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. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 5
DELETION OF SURVEILLANCE REQUIREMENT

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve deletion of Surveillance Requirements in the current Technical Specifications (CTS).

The CTS require safety systems to be tested and verified Operable prior to entering applicable operating conditions. The ITS eliminates unnecessary CTS Surveillance Requirements that do not contribute to verification that the equipment used to meet the LCO can perform its required functions. Thus, appropriate equipment continues to be tested in a manner and at a frequency necessary to give confidence that the equipment can perform its assumed safety function. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change deletes Surveillance Requirements. Surveillances are not initiators to any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased. The equipment being tested is still required to be Operable and capable of performing the accident mitigation functions assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The remaining Surveillance Requirements are consistent with industry practice and are considered to be sufficient to prevent the removal of the subject Surveillances from creating a new or different type of accident. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The deleted Surveillance Requirements do not result in a significant reduction in the margin of safety. As provided in the discussion of change, the change has been evaluated to ensure that the deleted Surveillance Requirements are not necessary for verification that the equipment used to meet the LCO can perform its required functions. Thus, appropriate equipment continues to be tested in a manner and at a frequency necessary to give confidence that the equipment can perform its assumed safety function. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 6
RELAXATION OF SURVEILLANCE REQUIREMENT ACCEPTANCE CRITERIA

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve the relaxation of Surveillance Requirements acceptance criteria in the current Technical Specifications (CTS).

The CTS require safety systems to be tested and verified Operable prior to entering applicable operating conditions. The ITS eliminates or relaxes the Surveillance Requirement acceptance criteria that do not contribute to verification that the equipment used to meet the LCO can perform its required functions. For example, the ITS allows some Surveillance Requirements to verify Operability under actual or test conditions. Adopting the ITS allowance for "actual" conditions is acceptable because required features cannot distinguish between an "actual" signal or a "test" signal. Also included are changes to CTS requirements that are replaced in the ITS with separate and distinct testing requirements which, when combined, include Operability verification of all TS required components for the features specified in the CTS. Adopting this format preference in the ISTS is acceptable because Surveillance Requirements that remain include testing of all previous features required to be verified OPERABLE. Changes which provide exceptions to Surveillance Requirements to provide for variations which do not affect the results of the test are also included in this category. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change relaxes the acceptance criteria of Surveillance Requirements. Surveillances are not initiators to any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased. The equipment being tested is still required to be Operable and capable of performing the accident mitigation functions assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed acceptance criteria for Surveillance Requirements do not result in a significant reduction in the margin of safety. As provided in the discussion of change, the relaxed Surveillance Requirement acceptance criteria have been evaluated to ensure that they are sufficient to verify that the equipment used to meet the LCO can perform its required functions. Thus, appropriate equipment continues to be tested in a manner that gives confidence that the equipment can perform its assumed safety function. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 7
RELAXATION OF SURVEILLANCE FREQUENCY

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve the relaxation of Surveillance Frequencies in the current Technical Specifications (CTS).

CTS and ITS Surveillance Frequencies specify time interval requirements for performing surveillance testing. Increasing the time interval between Surveillance tests in the ITS results in decreased equipment unavailability due to testing which also increases equipment availability. In general, the ITS contain test frequencies that are consistent with industry practice or industry standards for achieving acceptable levels of equipment reliability. Adopting testing practices specified in the ITS is acceptable based on similar design, like-component testing for the system application and the availability of other Technical Specification requirements which provide regular checks to ensure limits are met. Relaxation of Surveillance Frequency can also include the addition of Surveillance Notes which allow testing to be delayed until appropriate unit conditions for the test are established, or exempt testing in certain MODES or specified conditions in which the testing can not be performed.

Reduced testing can result in a safety enhancement because the unavailability due to testing is reduced and; in turn, reliability of the affected structure, system or component should remain constant or increase. Reduced testing is acceptable where operating experience, industry practice or the industry standards such as manufacturers' recommendations have shown that these components usually pass the Surveillance when performed at the specified interval, thus the frequency is acceptable from a reliability standpoint. Surveillance Frequency changes to incorporate alternate train testing have been shown to be acceptable where other qualitative or quantitative test requirements are required which are established predictors of system performance. Surveillance Frequency extensions can be based on NRC-approved topical reports. The NRC staff has accepted topical report analyses that bound the plant-specific design and component reliability assumptions. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change relaxes Surveillance Frequencies. The relaxed Surveillance Frequencies have been established based on achieving acceptable levels of equipment reliability. Consequently, equipment which could initiate an accident previously evaluated will continue to operate as expected and the probability of the initiation of any accident previously evaluated will not be significantly increased. The equipment being

tested is still required to be Operable and capable of performing any accident mitigation functions assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in a margin of safety?**

The relaxed Surveillance Frequencies do not result in a significant reduction in the margin of safety. As provided in the discussion of change, the relaxation in the Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. Thus, appropriate equipment continues to be tested at a Frequency that gives confidence that the equipment can perform its assumed safety function when required. Therefore, this change does not involve a significant reduction in a margin of safety.

10 CFR 50.92 EVALUATION
FOR
LESS RESTRICTIVE CHANGES – CATEGORY 8
DELETION OF REPORTING REQUIREMENTS

The North Anna Power Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Some of the proposed changes involve the deletion of requirements in the current Technical Specifications (CTS) to send reports to the NRC.

The CTS includes requirements to submit reports to the NRC under certain circumstances. However, the ITS eliminates these requirements for many such reports and, in many cases, relies on the reporting requirements of 10 CFR 50.73 or other regulatory requirements. The ITS changes to reporting requirements are acceptable because the regulations provide adequate reporting requirements, or the reports do not affect continued plant operation. Therefore, this change has no effect on the safe operation of the plant. These changes are generally made to conform with NUREG-1431 and have been evaluated to not be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, the Company has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed change deletes reporting requirements. Sending reports to the NRC is not an initiator to any accident previously evaluated. Consequently, the probability of any accident previously evaluated is not significantly increased. Sending reports to the NRC has no effect on the ability of equipment to mitigate an accident previously evaluated. As a result, the consequences of any accident previously evaluated is not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The deletion of reporting requirements does not result in a significant reduction in the margin of safety. The ITS eliminates the requirements for many such reports and, in many cases, relies on the reporting requirements of 10 CFR 50.73 or other regulatory requirements. The change to reporting requirements does not affect the margin of safety because the regulations provide adequate reporting requirements, or the reports do not affect continued plant operation. Therefore, this change does not involve a significant reduction in a margin of safety.

This proposed Technical Specification change has been evaluated against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. It has been determined that the proposed change meets the criteria for categorical exclusion as provided for under 10 CFR 51.22(c)(9). The following is a discussion of how the proposed Technical Specification change meets the criteria for categorical exclusion.

10 CFR 51.22(c)(9): Although the proposed change involves changes to requirements with respect to inspection or surveillance requirements,

(i) proposed change involves No Significant Hazards Considerations (refer to the Determination of No Significant Hazards Considerations section of this Technical Specification Change Request);

(ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite since the proposed changes do not affect the generation of any radioactive effluents nor do they affect any of the permitted release paths; and

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

Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Based on the aforementioned and pursuant to 10 CFR 51.22 (b), no environmental assessment or environmental affect statement need be prepared in connection with issuance of an amendment to the Technical Specifications incorporating the proposed change of this request.

SECTION 3.7 - PLANT SYSTEMS

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATIONS

SPECIFIC NSHCs

There are no specific NSHC discussions for this Section.