

June 4, 2001

Mr. David A. Christian
Senior Vice President and
Chief Nuclear Officer
Innsbrook Technical Center-2SW
5000 Dominion Blvd.
Glen Allen, Virginia 23060-6711

SUBJECT: NORTH ANNA POWER STATION, UNITS 1 AND 2: REQUEST FOR
ADDITIONAL INFORMATION (RAI) REGARDING SECTION 3.3.1 OF THE
IMPROVED TECHNICAL SPECIFICATIONS (ITS) FOR NORTH ANNA POWER
STATION, UNITS 1 AND 2 (TAC NOS. MB0799 AND MB0800)

Dear Mr. Christian:

The NRC staff reviewed your application dated December 11, 2000, to change the format and content of the Current Technical Specifications (CTS) to be consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1, and certain generic changes to the NUREG.

On the basis of our review of the proposed changes for ITS Section 3.3.1, Reactor Trip System Instrumentation, we find that additional information identified in the enclosure is needed. This inquiry was discussed with Ms. Regina Borsh of your licensing staff on May 23, 2001, who agreed to provide the staff with a response within 90 days of the date of this letter.

Sincerely,

/RA/

Stephen R. Monarque, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

Enclosure: Request for Additional Information

cc w/encl: See next page

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Mr. David A. Christian

North Anna Power Station

Virginia Electric and Power Company

Units 1 and 2

cc:

Mr. C. Lee Lintecum
County Administrator
Louisa County
P.O. Box 160
Louisa, Virginia 23093

Mr. David A. Heacock
Site Vice President
North Anna Power Station
P.O. Box 402
Mineral, Virginia 23117-0402

Mr. Donald P. Irwin, Esquire
Hunton and Williams
Riverfront Plaza, East Tower
951 E. Byrd Street
Richmond, Virginia 23219

Mr. Richard H. Blount, II
Site Vice President
Surry Power Station
Virginia Electric and Power Company
5570 Hog Island Road
Surry, Virginia 23883-0315

Dr. W. T. Lough
Virginia State Corporation
Commission
Division of Energy Regulation
P.O. Box 1197
Richmond, Virginia 23209

Robert B. Strobe, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P. O. Box 2448
Richmond, Virginia 23218

Old Dominion Electric Cooperative
4201 Dominion Blvd.
Glen Allen, Virginia 23060

Mr. William R. Matthews
Vice President - Nuclear Operations
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, Virginia 23060-6711

Mr. Stephen P. Sarver, Director
Nuclear Licensing & Operations Support
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, Virginia 23060-6711

Office of the Attorney General
Commonwealth of Virginia
900 East Main Street
Richmond, Virginia 23219

Senior Resident Inspector
North Anna Power Station
U.S. Nuclear Regulatory Commission
1024 Haley Drive
Mineral, Virginia 23117

REQUEST FOR ADDITIONAL INFORMATION (RAI)
NORTH ANNA POWER STATION, UNITS 1 AND 2
IMPROVED TECHNICAL SPECIFICATIONS (ITS)
ITS SECTION 3.3.1, REACTOR TRIP SYSTEM (RTS) INSTRUMENTATION
DISCUSSION OF CHANGES (DOC)

Additional justification is required for proposed changes. Revise the submittal to address comments that follow.

RAI 3.3.1 - Generic Comment #1

CTS Table 3.3-1, Table 4.3-1

Additional justification is required for proposed changes. Revise the submittal to address comment that follows. Comparison of Current Technical Specifications (CTS) Table 3.3-1, "APPLICABLE MODES" column to Table 4.3-2 "MODES IN WHICH SURVEILLANCE REQUIRED" column for specified functions shows that mode of applicability requirements are not always the same in the two tables and that the differences are not always evaluated in a DOC (e.g., Turbine Trip). In the ITS, the presentation is a single column applicable modes requirements listed by function. Identify any reactor plant system (RPS) function for which a mode of applicability difference exists between the two tables. Provide a DOC to justify changes to CTS requirements that are not already discussed.

RAI 3.3.1 - Undocumented CTS Changes - Comment #1

CTS Table 3.3-1, Table Notation, Action 1

ITS Action P

Clarify the submittal to address comment that follows. CTS requirements to allow testing the reactor trip breaker and automatic trip logic with an inoperable channel bypassed is shown in the CTS markup as Note 2 to ITS Required Action P.1. There is a mismatch between the CTS markup and the proposed ITS.

RAI 3.3.1 - Undocumented CTS Changes - Comment #2

CTS Table 2.2-1, Pressurizer Water Level - High

Clarify the submittal to address comment that follows. Pressurizer Water Level - High Allowable Value units ("of instrument span") are deleted in the ITS table without justification.

RAI 3.3.1 - Undocumented CTS Changes - Comment #3

CTS Table 3.3-1, Actions 2.c and 2.d.

Clarify the submittal to address comment that follows. CTS markup shows Action 2 is translated into two ITS Conditions, D and E. Table 3.3-1 does not provide a DOC for CTS Action 2.c and 2.d changes that are not included in ITS Condition E.

RAI 3.3.1 - CTS Markup mismatch with ITS - Comment #1

ITS Table 3.3.1-1, Function 18.b (P-7) and Function 18.e (P-13)

Clarify the submittal to address comments that follow.

For Function 18.b: Potential Beyond-Scope Issue. The CTS markup shows that SR 3.3.1.11 and SR 3.3.1.13 apply to the P-7 interlock. The ITS shows only SR 3.3.1.5, which is a deviation from STS. Provide corrected DOC justification.

For Function 18.e: The CTS markup shows that SR 3.3.1.10 and SR 3.3.1.13 apply to the P-13 interlock. The ITS shows SR 3.3.1.10 and SR 3.3.1.13. Provide corrected DOC justification.

RAI 3.3.1 - CTS Markup mismatch with ITS - Comment #2

ITS Table 3.3.1-1, Function 11(RCP Breaker Position)

Clarify the submittal to address comment that follows. For ITS Table 3.3.1-1, Function 11 (RCP Breaker Position) requires a 31-day Staggered Test Basis TADOT (SR 3.3.1.4), whereas the CTS Markup shows the “R” CHANNEL FUNCTIONAL TEST translated as ITS SR 3.3.1.14 (18-month, TADOT), which is not a deviation from the ISTS. (See JFD #5)

ADMINISTRATIVE CHANGES

DOC A.5

CTS Table 3.3-1 provides the requirements for the RTS instrumentation functions. The table’s columns list the name of the function, total number of channels, channels to trip, minimum number of OPERABLE channels, applicable MODES, and associated Actions. ITS Table 3.3.1-1 is constructed from the requirements of CTS Table, but with some modifications. The ITS Table lists the name of the function, required channels, applicable MODES or other specified Conditions, and associated Conditions. This change modifies the CTS Table by deleting the columns for the channels to trip and the minimum channels OPERABLE. In addition, this change modifies the name of the columns.

This change is acceptable because it maintains the technical requirements of the CTS with the conversion to the ITS. The “channels to trip” column is provided for information only and is not a technical requirement. The number of channels to provide a trip signal is set by the design of the RTS and does not change. For each function, the ITS Bases describes how each function operates to initiate the trip of the unit. Therefore, the elimination of the columns does not modify any technical requirement.

Comment #1 - Add DOC A.5 discussion for items labeled in Table 4.3-1 as DOC A.5 changes.

Comment #2 - The changes cited and discussed in the paragraph above are consistent with the use of LA changes Type 1 - removing details of system design and system description, including design limits.

The minimum channels OPERABLE column is not needed because ITS Conditions provide the necessary requirements to ensure the minimum channels will be maintained OPERABLE. This is also set by design and alluded to by ITS Bases but not specifically addressed. The elimination of this column does not add or delete any technical requirement.

Comment #3 - The changes cited and discussed above in the third sentence are consistent with the use of LA changes Type 1 - removing details of system design and system description, including design limits.

The “required channels” column incorporates the channel requirements of the instrumentation function provided by the CTS by the columns of total number of channels, channels to trip, and minimum channels OPERABLE. This requires a function, when the reactor being operated in specific MODES or specific conditions, to have a number of channels OPERABLE. If the number of OPERABLE channels is less than that required, the ITS Condition (formerly the CTS Action) must be entered. The addition of specific conditions in the ITS replaces the CTS use of various notes, which specify modifications to Actions or applicability for a function.

The MODES in which Surveillance Requirements are required are eliminated in Table 4.3-1 because the ITS Table 3.3.1-1 contains the same information. This change does not modify any technical requirement, but rather presents the information in a more logical manner. Any technical change to a function is addressed by a separate item in this DOC. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.9

CTS functions Pressurizer Pressure – Low, Pressurizer Water Level – High, Loss of Flow, Undervoltage and Underfrequency on RCP buses, and RCP Breaker Position, provide a Reactor Trip. For an inoperable channel on any of these functions, Action 8 must be entered. Action 8 requires the inoperable channel to be placed into trip within 72 hours or the unit is required to be placed below P-7 interlock within 78 hours. The applicability for each function is MODE 1 except for Pressurizer Pressure – Low and Pressurizer Level – High, which are MODES 1 and 2.

ITS 3.3.1 for functions 8.a (Pressurizer Pressure – Low), 9 (Pressurizer Water Level – High), 10 (Reactor Coolant Flow – Low), 12 (Undervoltage RCPs), and 13 (Underfrequency RCPs) requires each to be OPERABLE in MODE 1^(f) and Condition L to be entered if a channel becomes inoperable. Note ^(f) states, “Above the P-7 (Low Power Reactor Trips Block) interlock. Condition L requires for an inoperable channel that it be placed in trip within 72 hours or reduce power below P-7 setpoint within 78 hours. This change maintains the technical requirements of the CTS in the ITS format.

Comment #1 - Proposed changes to CTS Applicabilities represent less restrictive changes to the plant licensing basis because the ITS requires that the functions be operable in Mode 1 above P-7 (10% RTP), whereas CTS require the same functions to be operable in Mode 1 (> 5% RTP) or Modes 1 and 2 (≤ 5% RTP). These less restrictive changes are not evaluated in the DOCs.

Comment #2 - ITS function 11 (Reactor Coolant Pump Breaker Position) Applicability changes are not discussed in DOC A.9.

Comment #3 - ITS function 20 (RCP Breaker Position) is referenced in the DOC but changes not listed in the ITS references. Also, the CTS requires total channels to be 1/breaker whereas, the ITS requires 1/RCP. This change is not evaluated in a DOC.

The purpose of this change is to provide consistent requirements for the functions as assumed in the safety analyses assumptions. This change is acceptable because each

of the required Reactor Trip function is specified to be OPERABLE in the applicable MODE of operation. The Condition is consistent with appropriate Required Action to place the unit out of the MODE of applicability within Completion Times consistent with analyzed times. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.10

CTS Surveillance Requirements (SRs) for the Intermediate Range channels in Table 4.3-1 list a CHANNEL CHECK at a frequency of Q⁽¹²⁾ for the MODES 3*, 4*, and 5* applicability. The SRs listed for the Intermediate Range with the applicability in MODES 1 and 2 require the performance of a CHANNEL CHECK at a frequency of each shift (S), a CHANNEL CALIBRATION at a refueling frequency (R^(6,13)), and a CHANNEL FUNCTIONAL TEST at the frequency of each startup (S/U⁽¹⁾) and quarterly (Q⁽¹²⁾). The MODES of applicability for these SRs are MODES 1^{***} and 2. The Intermediate Range channels are required to be OPERABLE in MODES 1^{###} and 2 in Table 3.3-1. The ^{***} and ^{###} represent "Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) setpoint" for the applicability. CTS Action 3 must be entered for an inoperable channel. ITS 3.3.1 for function 4, the Intermediate Range Neutron Flux channels, list the applicability as MODES 1^(b) and 2^(c) and Condition F and G must be entered for inoperable channel(s). Note ^(b) states, "Below the P-10 (Power Range Neutron Flux) interlocks," and note ^(c) states, "Above the P-6 (Intermediate Range Neutron Flux) interlocks." The SRs required to be performed on the channels are listed as SRs 3.3.1.1 (CHANNEL CHECK), 3.3.1.8 (CHANNEL OPERATIONAL TEST (COT)), and 3.3.1.11 (CHANNEL CALIBRATION). This changes the CTS by deleting the CHANNEL CHECK SR Q⁽¹²⁾ for MODES 3*, 4*, and 5*, and modifies the applicability of the CTS from MODE 2 to MODE 2^(c) in the ITS.

Comment #1 - CTS ### becomes ITS Note (b); however, these changes are not evaluated in DOC A.10 to show the changes are administrative.

Comment #2 - DOC 10 states: "This changes the CTS by deleting the CHANNEL CHECK SR Q⁽¹²⁾ for MODES 3*, 4*, and 5*, and modifies the applicability of the CTS from MODE 2 to MODE 2^(c) in the ITS." Proposed CTS changes to MODE 2^(c) in the ITS from MODE 2 result in a less restrictive change that is not evaluated.

This change is acceptable because the Intermediate Range is only assumed to be OPERABLE, by the safety analyses, one decade above the overlap with the Source Ranges channels (P-6 setpoint) until the overlap with the Power Range channels (P-10 setpoint). This applicability is reflected in the CTS Action for the inoperability of a channel. The SR for MODES 3*, 4*, and 5* is not required to be performed because the SR 3.3.1.8 in MODES 1^(b) and 2^(c) will ensure the Intermediate Range channels are OPERABLE. This change is designated as administrative because it does not result in technical changes to the CTS.

Comment #3 - DOC A.10 states: "...because the SR 3.3.1.8 in MODES 1^(b) and 2^(c) will ensure the Intermediate Range channels are OPERABLE. This change is designated as administrative because it does not result in technical changes to the CTS." This statement for changes to the CTS SR in MODES 3*, 4*, and 5* appears to use ITS applicability requirements as

justification. Provide a safety basis justification for this proposed administrative change.

DOC A.11

The CHANNEL FUNCTIONAL TEST requirements in CTS Table 4.3-1 have been changed in ITS Table 3.3.1-1 to the CHANNEL OPERATIONAL TEST (COT), TRIP ACTUATION DEVICE OPERATIONAL TEST (TADOT), or ACTUATION LOGIC TEST (ALT). The individual RTS functions will require a COT, with the exception of the trip actuation logic, for which required testing would be the ALT. Trip actuation functions such as manual switches or RCP breakers will require a TADOT to be performed. Each SR Frequency is replaced with an ITS SR number that corresponds to the required testing at the current frequency. The technical requirements and frequency of testing for each function will remain unchanged in the ITS requirements, unless noted and addressed by a separate discussion of change.

Comment #1 - DOC A.11 states: "The change is acceptable because the COT, ALT, and TADOT maintain the technical requirements of the CHANNEL FUNCTIONAL TEST and more accurately describe the required testing for each RTS function." For each CTS function, provide a safety basis justification which shows the requirements are equivalent and therefore the changes from CTS CHANNEL FUNCTIONAL TEST requirements to the proposed ITS CHANNEL OPERATIONAL TEST, TRIP ACTUATING DEVICE OPERATIONAL TEST or ACTUATION LOGIC TEST are administrative.

Comment #2 - ISTS Note to SR 3.3.1.7, which provides an allowance delay performing the COT for SRNM, is adopted in ITS without justification.

The change is acceptable because the COT, ALT, and TADOT maintain the technical requirements of the CHANNEL FUNCTIONAL TEST and more accurately describe the required testing for each RTS function. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.13

CTS 3.3.1.1 Action 2.d in Table 3.3-1 states that the QUADRANT POWER TILT RATIO (QPTR) shall be determined to be within limit when reactor power is above 75 percent of RATED THERMAL POWER (RTP). The moveable incore detectors will be utilized to verify the QPTR when a Power Range Channel is inoperable. In this condition, the normalized symmetric power distribution is determined by either utilizing 2 sets of 4 symmetric thimble locations or a full core flux map. Every 12 hours, the results of the flux map must be compared with the indicated QPTR for consistency. The indicated QPTR is provided by the three Power Range Channels that remain OPERABLE. ITS 3.3.1 Action D.2.2 requires the performance of ITS SR 3.2.4.2, which verifies the QPTR is within its limit. This verification utilizes the movable incore detectors to determine the QPTR. This change modifies the CTS by eliminating the details of how the QPTR is determined.

This change is acceptable because the requirement to perform a verification that QPTR is within its limit remains unchanged. The details of verification are not necessary for

the Technical Specifications. This requirement also duplicates the requirement contained in CTS 4.2.4.2. This change permits the requirement to be stated only in the appropriate specification surveillance. This change is designated as administrative because it does not result in technical changes to the CTS.

Comment - DOC A.13 discusses changes that remove SR details because, as stated in DOC A.13, the change eliminates details of how the SR is determined. Changes of this type elsewhere in the ITS DOCs are LA Type 3 changes. Reconcile the non-administrative content of the proposed administrative changes.

DOC A.15

CTS 3.3.1.1 requirements for Functional Unit 6.C, Source Range Neutron Flux Shutdown, are stated in CTS Table 3.3-1. This requires Action 5 to be entered for an inoperable required Source Range channel. This requirement is applicable in MODES 3, 4, and 5 with the RTBs open. Action 5 states that with the number of OPERABLE channels one less than the required by the minimum channels OPERABLE, the SHUTDOWN MARGIN is verified for compliance, in accordance with CTS Specifications 3.1.1.1 or 3.1.1.2, and performed within 1 hour and every 12 hours thereafter. The total number of Source Range channels is listed as two, and the minimum channels OPERABLE is listed as one. ITS 3.3.1 requirement for the Source Range Neutron Flux, Function 5, is stated in ITS Table 3.3.1-1, and lists the number of required channels as one. The Table lists the applicability or other specified conditions as MODES 3^(e), 4^(e), and 5^(e) with the RTBs open, and Condition K must be entered for a required inoperable Source Range channel. Note ^(e) states, "With the RTBs open. In this condition, source range Function does not provide reactor trip but does provide indication." This change maintains the CTS technical requirements for the Source Range requirement for a shutdown condition with the RTBs open.

Comment - provide a correct citation of Note ^(e).

This change is acceptable because the CTS requirements are maintained with the conversion to the ITS format. The ITS number of required Source Range channels is one, which is the same as the CTS requirement of, "one less than the required by the minimum channels OPERABLE requirement." This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.18

CTS 3.3.1.1 Functional Unit 21B details the requirements for the Reactor Trip Bypass Breakers. This requirement lists that two channels are required to be OPERABLE in the applicable MODES, as indicated by a note ***, and Action 13 is required to be entered if a channel (bypass breaker) becomes inoperable. The note *** to the applicable MODES states, "With the Reactor Trip Breaker open for surveillance testing in accordance with Specification Table 4.3-1 (item 21A)." CTS Action 13 states that with an inoperable bypass breaker, the breaker must be restored to OPERABLE status within 1 hour, or the testing of the RTB must be terminated and the bypass breaker opened. ITS Function 19 states that two trains for the Reactor Trip Breakers ^(h) are required to be OPERABLE in MODES 1 and 2. ITS Note ^(h) denotes that the requirement includes any reactor trip bypass breakers that are racked in and closed for bypassing an RTB. Condition P is required to be entered for an inoperable train, either RTB or bypass breaker. Required

Action P.1 states that an inoperable train must be restored to OPERABLE status within 1 hour. If this cannot be accomplished, Required Action P.2 must be completed. This requires the plant to be placed in MODE 3 within 7 hours. This change modifies the CTS requirement for the Reactor Trip Bypass Breakers by including the requirement for the bypass breakers into the function for the RTBs and eliminating the separate function in the CTS.

Comment - DOC A.18 states, "If this cannot be accomplished, Required Action P.2 must be completed. This requires the plant to be placed in MODE 3 within 7 hours." There is an apparent mismatch with the CTS Markup of CTS Action 13. No discussion of change is provided for adding ITS Action P.2. Additionally, DOC A.18 concludes there are no technical changes that result from combining reactor trip bypass breakers into ITS RTBs TS requirements; however, the staff notes that the RTBs and RTB bypass breakers have different refueling surveillance requirements.

This change is acceptable because including the bypass breaker into the ITS requirement for the RTBs does not change the technical requirements for the bypass breaker. In the CTS and ITS requirements, if the bypass breaker becomes inoperable, that breaker must be restored to OPERABLE status within 1 hour. If this is not accomplished, the testing of the RTB must be immediately suspended and the breaker closed. The bypass breaker must be placed in the open position immediately follow this operation. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.19

CTS 3.3.1.1 requirement for RTBs is listed in Table 3.3-1 as Functional Unit 21A. This function lists Action 1 to be followed if an RTB channel becomes inoperable in MODES 1 and 2. In addition to this requirement, CTS Action 14 is applicable to the RTBs for the diverse trip function of undervoltage or shunt trip device. Action 14 states that if the RTB's diverse trip function becomes inoperable, the function shall be restored to OPERABLE status within 48 hours or the RTB will be declared inoperable and Action 1 will be applied. This additionally states the breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. ITS 3.3.1 Function 20 for the RTB's Undervoltage and Shunt Trip Mechanism is separated from the requirement of the RTBs. This function requires an undervoltage and shunt trip mechanism to be OPERABLE for each RTB in MODES 1 and 2, and MODES 3^(a), 4^(a), and 5^(a). If either the undervoltage or shunt trip function becomes inoperable for either applicability, Condition S or C is entered for the RTB. The Required Actions S.1 and S.2 direct that the inoperable trip mechanism is to be restored to OPERABLE status within 48 hours, or be in MODE 3 within the next 6 hours. The Required Actions C.1 and C.2 direct that the inoperable trip mechanism to be restored to OPERABLE status within 48 hours. If this can be done, the initiation of action to fully insert all rods shall be started and within the next hour the Rod Control System shall be placed in a condition where rods cannot be withdrawn. The testing of the function will also be conducted in accordance with the RTB and SR 3.3.1.4 as specified. This change maintains the technical requirements of the CTS in an ITS format.

Comment - The requirements for the undervoltage and shunt trip mechanism to be OPERABLE for each RTB in MODES 3^(a), 4^(a), and 5^(a) and ITS Condition C are new requirements. Provide the appropriate discussion of change justification for CTS changes that result from adding ITS Table 3.3.1-1, Function 20 (RTB Undervoltage and Shunt Trip Mechanism) requirements.

This change is acceptable because the technical requirements of the CTS are maintained. The format changes of the ITS requirements do not modify the current technical requirements, as currently interpreted. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.22

CTS Table 3.3-1 for the Functional Units 18.a (Low Auto Stop Oil Pressure) and 18.b (Turbine Stop Valve Closure) requires each function to be OPERABLE in MODE 1 and Action 9 to be entered for an inoperable channel. Action 9 requires an inoperable channel be placed in trip within 72 hours or reduce power to less than P-8 setpoint within the next 4 hours. ITS 3.3.1 requirements in Table 3.3.1-1 for the Turbine Trip (function 16) with Low Auto Stop Oil Pressure (16a) and Turbine Stop Valve Closure (16b) list the applicable MODE as MODE 1^(g). Note ^(g) states, "Above the P-8 (Power Range Neutron Flux) interlock." The Table lists the Condition N to be entered for an inoperable Turbine Trip channel. Condition N states with a channel inoperable, place the channel in trip within 72 hours or reduce power below the P-8 interlock within 76 hours. This changes the format of the CTS while maintaining the technical requirements.

Comment - The proposed ITS include a 4-hour channel bypass allowance Note to Action N.1; however, this change is not evaluated in the discussion of changes.

This change is acceptable because the technical requirements of the CTS for the required trips from the Turbine Trips are maintained in the ITS. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.23

CTS 3.3.1.1 for Functional Units 19, 21, and 22 lists the test requirements for the Safety Injection (SI) input to Engineered Safety Features (ESF), Reactor Trip Breakers (RTBs), and Automatic Trip Logic. Each of these functions must be tested monthly. This Frequency is modified by Note (5), which states, "Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS (STB)." ITS notation for STB utilizes a definition that states the frequency as 31 days on an STB for the RTBs, Function 19, and the Automatic Trip Logic, Function 21. The SI input to ESF testing requirement is moved to ITS LCO 3.3.2 for incorporation, but states the frequency of testing as 31 days on STB.

Comment - CTS Functional Unit 19 surveillance frequency "M as modified by Note (5)" is deleted from the proposed ITS requirements. Provide an L-DOC for this change to current TS.

This change is acceptable because the testing of the functions will continued to be required at the same frequency. The CTS definition for STB requires all trains or channels to be tested within the allowed time stated by the frequency. ITS definition for STB states that the frequency listed is the time for one train or channel to be tested. Under the CTS Frequency for the listed functions, two trains must complete the required testing in 62 days. The ITS Frequency requirement for each of these functions requires a train to be tested every 31 days with both trains completed in 62 days. Therefore, the testing requirements in the CTS and ITS require the same frequency for each function. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.25

CTS Table 4.3-1 for Function 18, Turbine Trip, specifies a CHANNEL FUNCTIONAL TEST with a frequency of S/U ⁽¹⁾. The S/U stands for prior to a reactor startup and Note (1) specifies "If not performed within the previous 31 days." ITS 3.3.1 Function 16, Turbine Trip, requires SR 3.3.1.15, a TADOT, to be performed "prior to exceeding the P-8 interlock whenever the unit has been in MODE 3, if not performed within the previous 31 days." This change maintains the CTS surveillance requirement frequency in the ITS format.

Comment #1 - DOC A.25 states the required TADOT (SR 3.3.1.15) frequency is "prior to exceeding the P-8 interlock whenever the unit has been in MODE 3...." Provide a discussion of change for this CTS change.

Comment #2 - The NOTE to SR 3.3.1.15 modifies the TADOT to not include verification of the setpoint. Provide an evaluation of CTS changes that result from adopting the ITS requirement.

This change is acceptable because the frequency of the required test continues to be performed in the same time period as required by the CTS. The ITS Frequency is consistent with the MODE of applicability for the function. This change is designated as administrative because it does not result in technical changes to the CTS.

DOC A.26

CTS 3.3.1.1 requirement for RTBs is listed in Table 3.3-1 as Functional Unit 21A. This function lists Action 1 to be followed if an RTB channel becomes inoperable in MODES 1 and 2. Additionally, Action 1 states, "One channel may be bypassed for up to 4 hours for concurrent surveillance testing of the reactor trip breaker and automatic trip logic, provided the other channel is OPERABLE." In addition to this requirement, CTS Action 14 is applicable to the RTBs for the diverse trip function of undervoltage or shunt trip device. Action 14 states that if the RTB's diverse trip function becomes inoperable, the function shall be restored to OPERABLE status within 48 hours or the RTB will be declared inoperable and Action 1 will be applied. Action 14 additionally states the breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status. ITS requirements for RTBs are listed in Table 3.3.1-1 as Function 19. This requires the RTBs to be OPERABLE in MODES 1 and 2 and Condition P to be entered if one RTB train is inoperable. Condition P is modified by a Note which states, "One RTB may be bypassed for up to 4 hours for maintenance on undervoltage or shunt trip

mechanisms, provided the other train is OPERABLE.” This changes the CTS requirements for the RTBs by providing 4 hours to perform maintenance on the undervoltage or shunt trip mechanism if the other train is OPERABLE.

Comment - DOC A.26, referring to CTS requirements, states “Action 14 additionally states the breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.” This requirement is deleted in the ITS. Provide an appropriate discussion of change justification.

This change is acceptable because the allowance for the RTB for inoperability of the undervoltage or shunt trip mechanism is maintained. The CTS Action’s allowance for maintenance on the RTB’s undervoltage and shut trip mechanism is maintained with the allowance of up to 4 hours for testing of the other RTB or automatic actuation logic. This change is designated as administrative because it does not result in technical changes to the CTS.

MORE RESTRICTIVE CHANGES

DOC M.1

Unit 1 CTS Table 4.3-1 for the RCP undervoltage function (functional unit 16) does not contain a Surveillance Requirement for a CHANNEL FUNCTIONAL TEST to be performed. The ITS in Table 3.3.1 –1 for function 12, RCP undervoltage, requires SR 3.3.1.9 to be performed on the Unit 1 function. This changes the CTS Surveillance Requirements for Unit 1 RCP undervoltage by specifying a TADOT be performed every 92 days.

This change is acceptable because the RCP undervoltage provides a reactor trip function and has the capability of being tested with the unit at full power. Testing of the Unit 2 undervoltage function is currently required every 92 days and will continue to be required in the ITS Surveillance Requirements. This change is designated as more restrictive because the ITS requirements specify an SR to be performed that the CTS does not require.

Comment #1 - Provide an evaluation for adding the Note to SR 3.3.1.9.

Comment #2 - DOC M.1 states, “Testing of the Unit 2 undervoltage function is currently required every 92 days and will continue to be required in the ITS Surveillance Requirements.” The basis for revising testing requirements for Unit 1 equipment requires more than a comparison to Unit 2 TS.

DOC M.3

CTS 3.3.1.1 Action 3.b requires for an inoperable Intermediate Range channel, when power is below P-10 and above the Intermediate Range interlock P-6, that the channel be restored to OPERABLE status prior to increasing power above the P-10 limit. ITS Required Actions F.1 and F.2 only allow operation between P-6 and P-10 power levels for a maximum time of 24 hours. After that, power level is required to either be increased above P-10 or decreased below P-6. The allowance for increasing power

above P-10 is addressed by DOC L.4. Limiting the time with an inoperable Intermediate Range channel to 24 hours changes the CTS requirements, which currently allow operation for an indefinite period of time.

This change is acceptable because a time limit is placed on the length of time the plant may operate with an inoperable Intermediate Range channel when at a power level at which the Intermediate Range channel is credited in the safety analysis. The requirement to allow only ~~two~~ 24 hours to restore the instrument to OPERABLE status or decrease below P-6 is reasonable because a protection function has been significantly degraded and 24 hours is a reasonable period of time to allow for a slow and controlled power adjustment. This change is more restrictive because it restricts the time the plant may operate with an inoperable Intermediate Range channel.

Comment - Typo in the paragraph above.

DOC M.4

CTS 3.3.1.1 Functional Unit 6 for the Source Range Neutron Flux requires Action 2 4 to be entered if the number of channels OPERABLE is one less than the minimum number when THERMAL POWER is below P-6 in MODE 2 operation. This Action limits the THERMAL POWER to the P-6 setpoint value until the inoperable channel is restored to OPERABLE status. ITS Function 5 Source Range Neutron Flux requires in Required Action H if one of the two required Source Range channels become inoperable a suspension of all operation involving reactivity changes. The requirement is modified by a Note that states, "Limited plant cool down or boron dilution is allowed provided the change is accounted for in the calculated SDM." This changes the CTS requirements for an inoperable Source Range channel by limiting operation involving reactivity additions.

Comment #1- Typo in the paragraph above.

Comment #2 - DOC M.4 states, "ITS Function 5 Source Range Neutron Flux requires in Required Action H if one of the two required Source Range channels become inoperable a suspension of all operation involving reactivity changes. The requirement is modified by a Note that states, "Limited plant cool down or boron dilution is allowed provided the change is accounted for in the calculated SDM." Currently, the DOC M.4 discussion of the safety basis for the change gives little technical basis upon which to conclude addition of the requirement will not adversely impact safety.

This change is acceptable because in this condition the number of Source Range channels, which are the only channels providing indication and protection, has been reduced by 50 percent and additional restrictions are appropriate. Above the P-6 level, the Intermediate and Power Range channels provide indication and protection, but below P-6, only the Source Range channels are available. The Source Range channels provide the operator with capability to monitor power level and automatic operation of the protection system. This change is more restrictive because plant operations are more limited by the ITS requirements than the CTS.

DOC M.5

CTS requirements for the Source Range instrumentation channels, Functional Unit 6, in Table 3.3-1 state for MODE 2## and MODES 3*, 4*, and 5* that Actions 15 and 5 4, respectively, are required to be entered for one channel inoperable. The CTS requirements do not address the possibility of two channels inoperable. If two Source Range channels did become inoperable in either applicable condition, LCO 3.0.3 must be entered. This would allow at least 1 hour before commencing a MODE change. ITS 3.3.1 Function 5, Source Range Neutron Flux, provides an additional Action I. This requires that if two Source Range channels become inoperable, the RTBs will be opened immediately. This changes the CTS by requiring the RTBs to be opened immediately if both Source Range channels become inoperable during start up or with the Rod Control System capable of withdrawing the shutdown and control rod banks.

Comment - Typo in the paragraph above.

This change is acceptable because with the reactor in a condition of being capable of going critical or in a start up condition with no Source Range channels OPERABLE, the operator has no indication of power level and no automatic safety function is capable of shutting down the plant. Therefore, the plant must be placed into a safer condition. This is accomplished by opening the RTBs and inserting all rods. This change is designated as more restrictive because the actions added are not required by the CTS.

DOC M.6

CTS 3.3.1.1, Table 3.3-1 for Functional Unit 6, Source Range Neutron Flux requires two channels to be OPERABLE when the plant is operating in MODES 3, 4, and 5, and the Rod Control System is not capable of rod withdrawal. If the required Source Range channel is inoperable, CTS Action 5 must be entered. Action 5 states that with the number of channels OPERABLE one less than the number required, SDM shall be verified within 1 hour and at least once per 12 hours thereafter. ITS 3.3.1 Function 5 for the Source Range channels states that 1 channel is required for MODES 3^(e), 4^(e), and 5^(e) and Condition K applies when the channel is inoperable. The notation ^(e) for the MODES requirements states that the RTBs are open. Condition K states that with the required Source Range Neutron Flux channel inoperable all operation involving positive reactivity be immediately suspended and requires ITS SR 3.1.1.1 within an hour and every 12 hours thereafter. A Note that states, "Limited plant cool down or boron dilution is allowed provided the change is accounted for in the calculated SDM" modifies the suspension of all operations involving positive reactivity addition. This changes the CTS by placing an addition restriction on operations when the required Source Range is inoperable.

This change is acceptable because the ability of the operator to monitor reactor power level is significantly degraded with the required Source Range channel inoperable. The limitation placed on operations is necessary to ensure the operator has minimum indication to accurately determine changes in reactor power level. This change is designated as more restrictive because the CTS do not currently require the suspension of all positive reactivity additions.

Comment - DOC M.6 requires additional safety basis discussion to establish a technical basis upon which to conclude addition of the requirement will not adversely impact safety.

DOC M.7

The requirements of CTS Surveillance Table 4.3-1 list the CHANNEL CALIBRATION of the Turbine Trip on Auto Stop Oil Pressure and Turbine Stop Valves closure as N.A. (Not Applicable). The Limiting Safety System Settings (LSSS) trip setpoint and allowable value of CTS Table 2.2-1 for the RTS instrumentation trip setpoints list values for the Turbine Trip Low Trip System pressure and Turbine Trip Turbine Stop Valve closure functions. The ITS requirement for these Turbine Trip Functions lists SR 3.3.1.10 to be performed at a frequency of 18 months. This changes the CTS by adding a CHANNEL CALIBRATION requirement for the Turbine Trip functions.

Comment - The NOTE to SR 3.3.1.10 includes a requirement to verify time constants are adjusted as part of the CHANNEL CALIBRATION requirement. This addition to CTS is not evaluated in the DOCs.

This change is acceptable because the periodic verification of the LSSS setpoints, up to the Allowable Values, is necessary to ensure the turbine will trip at the assumed setpoint value. This change is designated as more restrictive because the current requirement for the Turbine Trip does not require periodic CHANNEL CALIBRATION verification.

REMOVED DETAIL CHANGES

DOC LA.1

(Type 1 – Removing Details of System Design and System Description, Including Design Limits) CTS Surveillance Requirement 4.3.1.1.2 requires the RTS trip functions to be response time tested. This requirement includes the following, “Response of the neutron flux signal portion of the channel time shall be measured from the detector output or input of the first electronic component in the channel.” ITS SR 3.3.1.16 requires RESPONSE TIME testing of the RTS functions. This changes the CTS by moving the descriptive wording from the Specifications to the ITS Bases.

Comment - Discuss the CTS changes that result from adding the NOTE to SR 3.3.1.16 that excludes neutron detectors from RESPONSE TIME testing.

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 retain the requirement to perform RESPONSE TIME TESTING. Also, this change is acceptable because the removed information will be adequately controlled in the Technical Specification 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.

Comment - The changes cited and discussed in the paragraph also include Type 3 LA changes (Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems) because procedural details for meeting TS are moved to the Bases. Provide discussion for Type 3 changes.

DOC LA. 4

(Type 1 – Removing Details of System Design and System Description, Including Design Limits) CTS Table 4.3-1 contains surveillance requirements with Notes that provide information on the undervoltage and shunt trip circuits testing of the Reactor Trip Breakers (RTBs) and for the RTB bypass breakers in testing the automatic undervoltage trip during CHANNEL FUNCTIONAL TEST. ITS 3.3.1 SR for the RTBs and bypass RTBs does not contain this information. This changes the CTS by moving the descriptive information from the Specifications to the ITS 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 retain the necessary SR to maintain the RTB and bypass RTBs OPERABLE. 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.

Comment - LA.4 applies to CTS Note (10). Note (10) is not moved to the Bases for SR 3.3.1.2 as stated. Provide a citation, giving the location for Note (10) in ITS Bases.

DOC LA.13

(Type 3 – Removing Procedural Details for Meeting TS Requirements and Related Reporting Problems) CTS Table 4.3–1 states in Note 13 for the Intermediate and Source Range quarterly Surveillance that the detector plateau curves shall be obtained and evaluated. ITS state for the Source and Intermediate Range channels that SR 3.3.1.11 is required to be performed every 18 months. This changes the CTS by moving the detector plateau curves from the Specification to the ITS Bases.

Comment - There is an apparent mismatch with CTS markup pages. A.13 is not applicable to Quarterly SR for Intermediate Range Neutron Flux Monitors, whereas R(13) CTS CHANNEL CALIBRATION testing requirements are applicable and these changes are not evaluated in LA.13.

The removal of these details for performing actions 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 retain the surveillance requirement to maintain the Source and Intermediate Range channels OPERABLE. Also, this change is acceptable because these types of procedural details will be adequately controlled in the ITS Bases Changes to the Bases and 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

DOC L.1

(Category 4 – Relaxation of Required Action) CTS 3.3.1.1 in Table 3.3-1 requires for various functions that Action 15 be entered for an inoperable channel in MODES 3*, 4*, and 5*. Action 15 requires an inoperable channel be returned to OPERABLE status within 48 hours or open the Reactor Trip Breakers (RTBs) within the next hour. ITS 3.3.1 for these functions requires ITS Action C to be entered. Action C states with one channel or train inoperable, restore the function to OPERABLE status in 48 hours or initiate action to fully insert all rods in 48 hours and place the Rod Control System in a condition incapable of rod withdrawal within 49 hours. This changes the CTS by not requiring the RTBs to be opened but allowing an alternative action to disable the Rod Control System.

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 actuation of the remaining OPERABLE channel will be able to generate the safety function. The 48 hours allowed is the same time allowed for MODES 1 and 2. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

Comment - Provide discussion of change justification for Applicability changes to CTS Note *, “one or more rods not inserted.”

DOC L.3

(Category 4 – Relaxation of Required Action) CTS 3.3.1.1 Action 2 provides an option to reduce power and decrease the trip setpoints when a Power Range channel is inoperable. The option requires the channel to be placed in trip within 72 hours or a QPTR measurement is performed every twelve hours. ITS 3.3.1 Required Action D.2 maintains the requirement for placing the channel in trip and performing the QPTR measurement. A Note is added to Required Action D.2.2 that allows the Power Range channel to be considered OPERABLE for the purpose of calculating the QPTR if the portion of the channel continues to provide the necessary input for the QPTR calculation. This modifies the CTS by allowing the Power Range to be considered OPERABLE for the purposes of QPTR calculation if the channel continues to provide a valid signal to determine the power distribution. This changes the CTS by allowing an action that is not contained in the CTS.

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 Power Range functions remain OPERABLE. If a Power Range channel indication fails, the channel may continue to provide the required signal for QPTR calculations. If the portion of the Power Range channel input to QPTR is not OPERABLE, a flux map using the incore system must be performed. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

Comment - DOC L.3 states, "If the portion of the Power Range channel input to QPTR is not OPERABLE, a flux map using the incore system must be performed." Add discussion about changes that result from addition of the D.2.2 allowance "Only required to be performed...." to ITS.

DOC L.5

(Category 4 – Relaxation of Required Action) CTS 3.3.1.1 Functional Unit 5, Neutron Flux Intermediate Range channels, in Table 3.3-1 states if a channel becomes inoperable, Action 3 must be entered. CTS Action 3.a states that when below P-6, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 setpoint. CTS Action 3.b states with an inoperable Intermediate Range channel above P-6 but below P-10, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above P-10. ITS 3.3.1 Function 4 Intermediate Range Neutron Flux in Table 3.3.1-1 contains Action G. ITS Action G requires whenever reactor power is between P-6 and P-10 and two Intermediate Range channels become inoperable, ITS Required Actions G.1 and G.2 must be completed. Required Action G.1 states suspend operations involving positive reactivity additions. A Note that states, "Limited plant cool down or boron dilution is allowed provided the change is accounted for in the calculated SDM" modifies the Required Action. Required Action G.2 requires that THERMAL POWER must be decreased below P-6 within 2 hours. This changes the CTS by providing an action for two Intermediate Range channels 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. The proposed Action precludes a power level increase and allows a reasonable period of time for a slow and controlled power adjustment with no Intermediate Range channels OPERABLE status. The Intermediate Range channels provide the necessary redundant protection feature to transition from the Source Range channels to the Power Range channels for a reactor start up. This change is designated as less restrictive because less stringent Required Actions are being applied in the ITS than were applied in the CTS.

Comment - add discussion to DOC L.5 providing a comparison of actions required by CTS to the actions proposed in ITS Condition G.

DOC L.6

(Category 7 – Relaxation Of Surveillance Frequency) CTS Table 4.3-1 lists for the Power Range (Low Setpoint), Intermediate Range, and Source Range channels, the surveillance requirements for a CHANNEL FUNCTIONAL TEST (CFT). The CFT must be performed prior to a reactor start up if has not been completed within the previous 31 days by Note 1 to the SR. The Source and Intermediate Ranges additionally require a quarterly test to be performed (Q^(Note 12)). ITS SR 3.3.1.8 for the Source, Intermediate, and Power Range Neutron Flux channels requires a CHANNEL OPERATIONAL TEST (COT) be performed every 92 days. Additionally, a COT must be performed for these instrument channels prior to reactor startup if not performed within the previous 92 days. With the reactor operating for more than 92 days, the COT must be performed for the Source Range within 4 hours after reducing power below the P-6 setpoint. The Power and Intermediate Range channels must perform the COT within 12 hours after power is reduced below the P-10 setpoint. This changes the CTS by extending the COT frequency requirements from 31 to 92 days prior to a reactor startup. Additionally, 4 hours are allowed for the Source Range and 12 hours for the Power and Intermediate Ranges to perform the COT after entry into the applicable MODE or specified conditions.

Comment #1 - PRNF channels (low setpoint) do not require a quarterly CFT as discussed above.

This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The Power Range Low Setpoint, Intermediate and Source Ranges will continue to be tested at a frequency to ensure channel OPERABILITY. This change is designated as less restrictive because surveillances will be performed less frequently under the ITS than under the CTS.

Comment #2 - DOC L.6 states “This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability.” Provide documentation to show the specific results from the evaluation for the surveillance test extensions, the 4-hour completion time allowance to perform Source Range Neutron Monitor COT, and the 12-hour completion time allowance to perform the Intermediate Range Neutron Monitor COT.

Comment #3 - Provide DOC discussion to justify the Intermediate Range Q(12) CTS test deletions.

Comment #4 - Provide DOC discussions to justify the SR 3.3.1.8 requirement to include verification that interlocks P-6 and P-10 are in their required states.

DOC L.9

(Category 7 – Relaxation of Surveillance Frequency) CTS surveillance requirements for the Power Range Neutron Flux CHANNEL CALIBRATION are listed in Table 4.3-1 as M⁽³⁾. This requires the four Power Range channels to be compared to the incore system on a monthly basis. Note⁽³⁾ states that the incore comparison is required to be performed above 15 percent RTP. ITS SR 3.3.1.3 for the Power Range Neutron Flux

must be performed every 31 EFPD. The requirement is modified by Note 2, which states, "Not required to be performed until 24 hours after THERMAL POWER is ³ 15% RTP." This changes the CTS by allowing 24 hours to perform a CHANNEL CALIBRATION after THERMAL POWER of the Power Range channels exceeds 15 percent RTP for the initial surveillance testing.

Comment#1- There is an apparent mismatch between the CTS markup and the ITS. ITS SR 3.3.1.3 only applies to OT DT; it is not applicable to PRNF.

Comment #2 - The CTS reference above to the M ⁽³⁾ CHANNEL CALIBRATION is only applicable to PRNF, but not OT DT. The addition of SR 3.3.1.3, "Compare the results of the incore detector measurements to NIS AFD." OT_ΔT is not evaluated by DOC L.9.

Comment #3 - For M⁽³⁾ CTS changes, M to D frequencies and 3% to 2% are not evaluated by DOC L.9.

Comment #4 - M⁽⁶⁾ not Q⁽⁶⁾ applies to PRNF in CTS Table 4.3-1. The deletion of the monthly PRNF channel calibrations is not evaluated.

This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The allowance of 24 hours after exceeding 15 percent RTP is a reasonable period of time during a plant start up. The transient nature of returning the plant to full power and performing the required testing requires the plant to be in a steady state condition. The operator monitors power level indications on a continuous basis and CHANNEL CHECKS must be performed on the Power Range channels on a 12-hour basis. The performance of the CHANNEL CHECK is sufficient compensatory measure to ensure the OPERABILITY for the Power Range channel instrumentation until the CHANNEL CALIBRATION is performed. This change is designated as less restrictive because surveillances will be performed less frequently under the ITS than under the CTS.

Comment #5 - DOC L.9 justifies changes as, "The allowance of 24 hours after exceeding 15 % RTP is a reasonable period of time during a plant start up. The transient nature of returning the plant to full power and performing the required testing requires the plant to be in a steady state condition." What is the intended meaning? The same phrase is used in DOC L.15 to justify a 12-hour allowance vice a 24-hour allowance after exceeding 15% power as a reasonable time in which to perform the testing. Explain the basis for the proposed changes given the different completion times.

DOC L.11

(Category 7 – Relaxation of Surveillance Frequency) CTS testing requirements listed in Table 4.3-1 require the Source, Intermediate, and Power Range channels to perform an S/U ⁽¹⁾. Note ⁽¹⁾ states, "If not performed within the previous 31 days." ITS SRs for these ranges of instrumentation channels are listed as SRs 3.3.1.7 and 3.3.1.8. The frequency of these SRs is 92 days. A Note in the Frequency column of SR 3.3.1.8 states, "Only required when not performed within previous 92 days." This changes the CTS requirement by increasing the time from 31 to 92 days for the required testing.

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 is acceptable because the frequency of the routine testing is 92 days. If the test has been performed within that period of time, the instrumentation channels are assumed to be OPERABLE. This change is designated as less restrictive because surveillances will be performed less frequently under the ITS than under the CTS.

Comment - Provide a safety basis discussion for changing the SR to 92 days from 31 days.

DOC L.16

(Category 7 – Relaxation of Surveillance Frequency) The CTS Frequency for the Power Range Neutron Flux CHANNEL CALIBRATION is listed in Table 4.3-1 as M⁽³⁾ and Q⁽⁶⁾. This requires measurement of the Power Range channels Axial Flux Difference (AFD) and the results are compared to the incore instrumentation measurement of the parameter for the Over Temperature DT function. ITS SR 3.3.1.3 for the Power Range Neutron Flux AFD measurement is required to be compared with the incore detector measurement of AFD every 31 effective full-power days (EFPD). ITS SR 3.3.1.6 requires the cross calibration of the excore system to the incore system every 92 EFPD. This changes the CTS by allowing these CHANNEL CALIBRATIONS to be performed on an EFPD basis, instead of calendar days.

Comment #1 - DOC L.16 discusses changes to PRNF and OT_ΔT trip functions. The statements in the first paragraph are not organized such that it is well understood which CTS change is being evaluated. ITS SRs 3.3.1.3 and 3.3.1.6 are referenced. These surveillances include NOTES that are not discussed. Provide evaluation for CTS changes that result from adopting the SR NOTES.

Comment #2 - Show that no CTS changes result from adopting EFPD units.

This change is acceptable because the new Surveillance Frequency has been evaluated to ensure that it provides an acceptable level of equipment reliability. The allowance for performing the comparison of the NIS channels indications to the incore indications are on an EFPD basis. AFD changes are a function of burn up and not calendar days. The calculations of AFD and cross-calibration of incore to excore system are inputs to the Over Temperature DT function and are not performed as a requirement for the Power Range channels. This change is designated as less restrictive because Surveillances will be performed less frequently under the ITS than under the CTS.

Comment #3 - The second sentence in the second paragraph is unclear.

Comment #4 - Q⁽⁶⁾ CTS Channel Calibrations are changed in the ITS and these changes are not evaluated in DOC L.16.

DOC L.17

(Category 6 – Relaxation Of Surveillance Requirement Acceptance Criteria) The CTS requires a CHANNEL FUNCTIONAL TEST for the Source Range Neutron Flux channels on a quarterly basis. Normally, if the reactor has been operating in MODE 1 for greater than 92 days, the surveillance should be performed prior to entering the MODE of Applicability on a reactor shutdown. The MODES of Applicability for these channels are

listed as 2, 3, 4, and 5. To not perform the required surveillance prior to entry into the MODE of Applicability requires an exception to Surveillance Requirement 4.0.4. The CTS requirements do not contain the required exception. ITS SR 3.3.1.7 for the Source Range Neutron Flux channel requires a COT be performed every 92 days. This surveillance requirement is modified by a Note that states, "Not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3." The applicable MODES for this requirement are listed as 2^(d), 3^(a), 4^(a), and 5^(a). Note ^(d) states, "Below the P-6 (Intermediate Range Neutron Flux) interlocks. Note ^(a) states, "With Rod Control System capable of rod withdrawal or one or more rods not fully inserted." This changes the CTS by allowing 4 hours after entering MODE 3 from MODE 2 to perform the COT on the Source Range channels.

Comment - There is a mismatch between the CTS Source Range Neutron Flux trip function markup, which shows SR 3.3.1.7 applies, and ITS markup, which applies SR 3.3.1.8.

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 allowance of 4 hours is a reasonable period of time to delay the performance of the required testing during the transient condition of a plant shut down. During this period of time, the operator attention should not be distracted. Operating experience has shown that the Source Range channels usually satisfy these testing requirements, and the channels remain OPERABLE as the reactor shut down is completed. This change is designated as less restrictive because less stringent Surveillance Requirements are being applied in the ITS than were applied in the CTS.

DOC L.18

(Category 3 – Relaxation of Completion Time) CTS 3.3.1.1 in Table 3.3-1 requires in MODES 3*, 4*, and 5* that Action 15 be entered for an inoperable Source Range channel. The note * states, "With the reactor trip system breakers in the closed position and the control rod drive system capable of rod withdrawal." Action 15 requires an inoperable channel be returned to OPERABLE status within 48 hours or open the Reactor Trip Breakers (RTBs) within the next hour. ITS 3.3.1 for an inoperable Source Range channel in MODES 3^(a), 4^(a), and 5^(a) requires that Action J to be entered. Note ^(a) states, "With the Rod Control System capable of rod withdrawal, or one or more rods not fully inserted." Action J states with a required channel inoperable, restore the channel to OPERABLE status in 48 hours or initiate action to fully insert all rods in 48 hours and place the Rod Control System in a condition incapable of rod withdrawal within 49 hours. This changes the CTS by not requiring the RTBs to be opened but allowing an alternative action to disable the Rod Control System.

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. Each function maintains an OPERABLE channel and remains capable of performing the required

function. The actuation of an OPERABLE channel will generate the function. The 48 hours allowed is the same time allowed for MODES 1 and 2. The additional hour is provided prior to requiring the opening of the reactor trip breakers and used in a similar manner to disable the Rod Control System. This is reasonable and allows the operator adequate time to perform the task in a controlled manner without challenging plant systems. 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.

Comment - Provide discussion that establishes a safety basis conclusion for the proposed alternative completion times and Actions provided in the ITS.

DOC L.20

(Category 5 – Deletion of Surveillance Requirement) CTS 4.3.1.1.2 states, “The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit at least once per 18 months.” ITS 3.3.1 in Table 3.3.1-1 under the Surveillance Requirements column lists SR 3.3.1.16. This SR states, “Verify RTS RESPONSE TIME is within limits.” This SR is required for all RTS Functions except the following: (1) Manual Reactor Trip, (3.a) Power Range Neutron Flux High Positive Rate, (4) Intermediate Range Neutron Flux, (7) Overpower DT, (15) Steam/Feed Flow Mismatch and Low Steam Generator Water Level, (16) Turbine Trip, (17) SI input from ESF, (11) Reactor Coolant Pump Breaker Position Trip, (19) Reactor Trip Breakers, (20) RTB Undervoltage and Shunt Trip Mechanisms, and (21) Automatic Trip Logic. This changes the CTS by deleting the Response Time Testing requirements for the listed functions.

The purpose of ITS SR 3.3.1.16 is to ensure that the required functions are response time tested and the required times are met. This change is acceptable because the deleted Surveillance Requirement is not necessary to verify that the RTS functions used to meet the LCO are consistent with the safety analysis. Thus, appropriate RTS functions are to be tested in a manner and at a frequency necessary to give confidence that the assumptions in the safety analysis are protected and the required RTS functions can perform their assumed safety function. The deletion of the Response Time Testing for the listed RTS functions is acceptable because the testing requirements are the same requirements that were originally moved from the Technical Specifications to the Technical Requirements Manual. This change is designated as less restrictive because Surveillances that are required in the CTS will not be required in the ITS.

Comment - Less restrictive changes to CTS requirements require definitive safety basis justifications that prove beyond a reasonable doubt that public health and safety will not be adversely affected.

**ITS 3.3.1 RTS INSTRUMENTATION
JUSTIFICATION FOR DEVIATION (JFD)**

Additional justification is required for proposed changes. Revise the submittal to address the comments that follow.

JFD 10

Technical Specifications Task Force (TSTF)-135 deletes the requirement for Function 4, Source Range Neutron Flux requirements, to be OPERABLE in MODES 3, 4, and 5 when the Rod Control System is incapable of moving the shutdown or control rods. The Function requires one Source Range channel to be OPERABLE. Condition L requires that when the required channel becomes inoperable, operations involving positive reactivity addition be immediately suspended and the SDM verified within 1 hour and every 12 hours thereafter. The justification given in TSTF-135 for deleting these requirements is that they are moved to ISTS LCO 3.3.9, Boron Dilution Protection System (BDPS). North Anna does not utilize a BDPS for protection against a boron dilution accident and has current requirements for maintaining one OPERABLE Source Range channel with an associated Action that requires the verification of SDM within an hour and every 12 hours thereafter, when the required channel becomes inoperable. Therefore, the CTS requirements are maintained in ITS LCO 3.3.1.

Comment - Review of operability requirements for Source Range Monitors in MODES 3, 4 and 5 with the RTBs open indicates that the SRM function is incapable of performing a reactor trip. Review of the justification given in TSTF 135 for removing the monitoring function from the Reactor Protection System is that the requirements are not related to RTS, but involve BDPS instrumentation. Review of the ITS for SRM operability in MODES 3, 4 and 5 with the reactor trip breakers open provides appropriate limiting conditions for operation, including surveillance requirements. The current justification for deviation does not sufficiently make the case that the North Anna 1 and 2 design basis is different enough to support deviation from the ISTS in that a separate LCO for MODES 3, 4 and 5 requirements with the reactor trip breakers open can be proposed for ITS that meets the intent of the ISTS.

JFD 15

ISTS SR 3.3.1.6 states that a calibration of excore channels is required to be performed to make the channels agree with the incore detector measurements. ITS SR 3.3.1.6 requires a comparison of the results of the incore detector measurement and the excore channels. Note 1 to the SR states, "Adjust NIS channel if absolute difference is $\geq 3\%$." This change is acceptable because the results of the incore measurements to excore channels will cause the NIS channels for the DI function to be readjusted if the difference is 3 percent or more. Note 1 is added to prevent unnecessary recalibration when the difference between the NIS channels and incore measurements is small.

Comment - Changing ISTS SR 3.3.1.6 to "Compare" from "Calibrate" is a generic change that requires documentation of a design difference or an approved TSTF.