

December 19, 2001

Mr. Mano Nazar
Site Vice President
Prairie Island Nuclear Generating Plant
Nuclear Management Company, LLC
1717 Wakonade Drive East
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2 - REQUEST
FOR ADDITIONAL INFORMATION REGARDING THE APPLICATION FOR
CONVERSION TO IMPROVED TECHNICAL SPECIFICATIONS, SECTION 3.3
(TAC NOS. MB0695 AND MB0696)

Dear Mr. Nazar:

By application dated December 11, 2000, as supplemented March 6, June 5, July 3, August 13, and November 12, 2001, Nuclear Management Company, LLC, submitted a license amendment request to convert the current Technical Specifications (TSs) for the Prairie Island Nuclear Generating Plant, Units 1 and 2, to a set of improved TSs (ITS).

Enclosed is the Nuclear Regulatory Commission (NRC) staff's request for additional information (RAI) on Section 3.3, "Instrumentations," of the subject ITS submittal. The contents of the enclosed RAI have been previously forwarded to Mr. Dale Vincent of your staff to facilitate any questions or clarifications on the RAI. Subsequent dialogues have clarified the NRC staff's understanding on a number of items, and thus requires no further information, as noted in the enclosure. For the rest of the items in the enclosure, please respond within 60 days from the date of this letter.

Please contact me on (301) 415-1392 if you have any questions regarding this RAI.

Sincerely,

/RA/

Tae Kim, Senior Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-282 and 50-306

Enclosure: Request for Additional Information

cc w/encl: See next page

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Prairie Island Nuclear Generating Plant,
Units 1 and 2

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PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2
REQUEST FOR ADDITIONAL INFORMATION
SECTION 3.3 - INSTRUMENTATION

Please note that this is a complete set of RAI for Section 3.3 including subsections 3.3.1(RTS); 3.3.2 (ESFAS); 3.3.3(PAM) & 3.3.4(4kV Safeguards Bus Voltage); and 3.3.5(CVI).

Additional justification is required for proposed changes where comments follow in **bold text**. Revise the submittal to address the generic and specific Discussion of Change (DOC) and Justification for Difference (JFD) comments that follow.

The following items describe changes proposed in the December 11, 2000, application, Package 3.3, Part C, "Markup of Prairie Island Current Technical Specifications (CTS)."

RAI 3.3.1- Undocumented CTS Changes - #1, page 2 of 72

CTS 2.3.A.2.d.1, d.2, d.3 and the paragraph that preceeds this CTS citation

ITS Table 3.3.1-1, Function 6 and Note 1

The paragraph that precedes the CTS citation is modified for ITS without accompanying justification. The cited CTS requirements are deleted without accompanying NSHD discussion.

RAI 3.3.1- Undocumented CTS Changes - #2, page 2 of 72

CTS 2.3.A.2.e

ITS Table 3.3.1-1, Function 7, Note 2

CTS markup specifies values for defined variables. These variable values are mismatch with the ITS and the changes are not evaluated in a DOC.

RAI 3.3.1- Undocumented CTS Changes - #3, page 2 of 72

CTS 2.3.A.2.f

ITS Table 3.3.1-1, Function 10

CTS markup specifies the low reactor coolant flow to be a percent of "normal indicated loop flow as measured at loop elbow tap." The descriptive information is deleted without discussion.

RAI 3.3.1- Undocumented CTS Changes - #4, page 3 of 72

CTS 2.3.A.2.g; ITS Table 3.3.1-1, Function 12 & Table 3.3.2-1, Function 6d

CTS 2.3.A.3.a & .b; ITS Table 3.3.1-1, Function 9, 13; Table 3.3.2-1, Function 6b

DOC 3.3-31

CTS markup specifies values for defined variables. The ITS proposes changes to the units for these variable and the changes are not evaluated in a DOC.

RAI 3.3.1- Undocumented CTS Changes - #5, page 13 of 72

CTS Table 3.5-2A, Function 17 (Safety Injection), ITS Table 3.3.1-1, Function 15;

Function 18 (Auto Trip & Interlock Logic), ITS Table 3.3.1-1, Function 19;

Function 19 (Reactor Trip Breakers), ITS Table 3.3.1-1, Function 17

CTS markup specifies 2 required channels for these functions. The ITS specifies two required trains. The CTS changes are not evaluated in a DOC.

ENCLOSURE

RAI 3.3.1- Undocumented CTS Changes - #6 page 14 of 72

CTS Table 3.5-2A, Function N/A

ITS Table 3.3.1-1, Function 18

The ITS adopts the STS RTB UV and Shunt Trip Mech. Function and adds a new Note j which is justified as included to provide clarification to the operators that these specification requirements only apply to breakers that are OPERABLE and closed. This proposed change is not evaluated by a DOC and no traveler is proposed for this change.

RAI 3.3.1- Undocumented CTS Changes - #7 page 16 of 72

CTS Table 3.5-2A, Action 2.c

ITS Condition D (only)

Comment 1: CTS Action 2.c includes reference to Specification 3.10.C.4. Is this equivalent to ITS 3.2.4.2?

Comment 2: Additional justification for this change is required. ITS reference to "Condition D only" appears to be incorrect. This action also applies to ITS Condition E, Functions (CTS F.2.b, F.3 and F.4).

RAI 3.3.1- Undocumented CTS Changes - #8 page 16 of 72

CTS Table 3.5-2A, Action 2.d

ITS Condition D, E Note 2

Comment: ~~Condition D becomes Note 2 in the ITS. Why wasn't this note copied to ITS Condition D as note 2 to preserve the CTS.~~

<<Comment is withdrawn following telephone discussions July 11-12, 2001 with the licensee>>

RAI 3.3.1- Undocumented CTS Changes - # 9 page 48 of 72

CTS Table 4.1-1A

ITS Table Note AA to refueling interval calibration.

Comment: *Potential Beyond Scope Issue (BSI)* - This proposed note is a procedural detail that belongs in the Bases to the surveillance requirement (SR).

RAI 3.3.1- Undocumented CTS Changes - # 10 page 49 of 72

CTS Table 4.1-1A

ITS SR 3.3.1.8 for Function 5, SRNM shutdown

Comment: The proposed quarterly COT is a deviation from the STS requirement for SR 3.3.1.7. This deviation is not justified.

RAI 3.3.1- Undocumented CTS Changes - # 11 page 51 of 72

CTS Table 4.1-1A, F16.b

ITS Function 11, Loss of RCP on underfrequency 4K bus

Comment: The CTS markup shows note (B,B), above P-7, applies to the MODES OF APPLICABILITY. The MODE OF APPLICABILITY for the Loss of RCP on Breaker Open trip function is above P-7 or P-8. Explain the difference in MODES OF APPLICABILITY.

RAI 3.3.1- Undocumented CTS Changes - # 12 page 52 of 72

CTS N/A

ITS SR 3.3.1.10 for Function 16.B, P-7 turbine impulse pressure

Comment: The proposed refueling interval Calibration is a deviation from the STS requirement (SR 3.3.1.11) for RTS Interlocks. This deviation is not justified.

RAI 3.3.1- Undocumented CTS Changes - # 13 page 54 of 72

CTS Table 4.1-1A, Note (6)

ITS SR 3.3.1.3

Comment: The CTS note requires "Single point comparison of incore to excore for axial off-set...". No DOC is provided for deleting this TS requirement.

RAI 3.3.1- Undocumented CTS Changes - # 14 page 55 of 72

CTS Table 4.1-1A, Note (10)

ITS SR 3.3.1.8, Note

Comment: The DOC justification for deleting the CTS requirement to perform the quarterly surveillance "in MODES 3, 4 and 5" was not provided.

RAI 3.3.1- Undocumented CTS Changes - # 15 page 56 of 72

CTS Table 4.1-1A, Note (15)

ITS Table 3.3.1-1, Func 17

Comment: The CTS uses DOC A3.3-14 to justify changes to CTS. DOC A3.3-14 does not evaluate CTS Table 4.1-1A note (15) changes.

RAI 3.3.2- Undocumented CTS Changes - #1, page 27 of 72

POTENTIAL BEYOND SCOPE ISSUE

CTS Table TS 3.5-2B, Function 5a, Steam Line Isolation - Manual

ITS Table 3.3.2-1 - None [JFD CL3.3-223]

Comment: The CTS markup deletes, without justification, the main steam line isolation manual initiation function, required channels, applicable modes, action requirements and surveillance requirements. Retaining this function in ITS is consistent with PI current licensing basis and the NUREG-1431. Revise the ITS to include the CTS requirements for Manual Initiation of Main Steam Line Isolation.

RAI 3.3.2- Undocumented CTS Changes - #2, page 61 of 72

POTENTIAL BEYOND SCOPE ISSUE

CTS Table 4.1-1B, Function 6a, Hi-Hi Steam Generator Level

ITS Table 3.3.2-1, Function 5.b, [JFD CL3.3-258]

Comment: The CTS markup shows the addition of Note (29) to Mode 2. This CTS change is undocumented. Provide the missing documentation.

RAI 3.3.3- Undocumented change - #1, ITS page 3.3.3-5:

ITS SR 3.3.3.2, Note

Comment: The addition of "Neutron detectors are excluded from CHANNEL CALIBRATION" is included in the ITS without a supporting discussion of change reference to CTS.

RAI 3.3.4- Undocumented change -#1, page 3.3.4-1

ITS ACTIONS Note

Comment: The ITS allowance “Separate Condition entry is allowed for each Function.” is added to the ITS without a discussion of change to CTS. Provide a DOC.

RAI 3.3.4- Undocumented change -#2, page 32 of 72 (Part C)

Comment: Provide a Discussion of Change for deleting CTS channels per phase and phases per bus requirements in Table 3.5-2B, Loss of Power Functions 8.a and 8.b.

RAI 3.3.5- Undocumented change -#1, pages 58 and 59 of 72 (Part C)

Comment: Table 4.1-1B requirements to perform a Functional Test of Manual and for Automatic Actuation Logic and Actuation Relays for Containment Ventilation Isolation channel/trains are translated as a TADOT with a note that setpoint verification is not required. The Table 4.1-1B requirement to perform a Functional Test of High Radiation in Exhaust Air for Containment Ventilation Isolation channels is translated as a COT. Provide safety basis discussion to document the CTS changes proposed for ITS.

RAI 3.3.5- Undocumented change -#2, page 59 of 72 (Part C)

Comment: Table 4.1-1B requirements to perform a daily Check of High Radiation in Exhaust Air for Containment Ventilation Isolation channels is translated as a Channel Check once per shift. Provide safety basis discussion to document the CTS changes proposed for ITS.

RAI 3.3.5- Undocumented change -#3, page 39 of 72 (Part C)

Comment: CTS 3.6.D.2.e. and f. require operability of the automatic shield building ventilation damper in each duct that penetrates containment. This CTS requirement is deleted. Provide a discussion of change justification for this less restrictive requirement.

DISCUSSION OF CHANGE

- A 001 The current format for the CTS includes Applicability and Objective statements at the beginning of each TS Section. For most of the TS Sections, these statements are vague and do not provide meaningful information in the ITS format and therefore, these statements are not included in the ITS. Since these general CTS statements do not establish any regulatory requirements and are incorporated in a broad sense in the ITS, these are considered administrative changes.

A few Sections, such as CTS 3.15, have been revised to conform to NUREG-1431 guidance and the Applicability statement is meaningful and will be addressed in the discussion of those Sections.

- A 002 2.3.A.3.d. Since this is simply a reference to another section in the CTS, this statement is not included in the ITS. Since no substantive information is included, this is an administrative change.

- LR 003 2.3.C. Control Rod Stops are not instrumentation used to detect RCS leakage, they are not a design feature that assumes the failure of or presents a challenge to the integrity of a fission product barrier, they are not a system that is part of the primary success path to mitigate a design basis accident nor have they been shown to be significant to public health and safety. Since the control rod stops do not meet the TS Selection Criteria of 10 CFR 50.36, they have been relocated to the TRM. This is acceptable since the TRM is part of the USAR and therefore is under the regulatory controls of 10 CFR 50.59. Since the TRM is under licensee control this is a less restrictive change. This change conforms to the guidance of NUREG-1431.

Comment: The staff does not agree that the changes evaluated can be categorized as NSHD category LR. The discussion of change states that the Control Rod Withdrawal Stops do not meet TS selection criterion of 50.36. If a CTS requirement does not meet 10 CFR 50.36 selection criteria then requirement is NSHD category R to identify a relocation of requirements. Provide further explanation of this categorization. Additionally, clarify the first sentence of the DOC because the relationship of the control rod stops to detection instrumentation is not understood.

- A 004 3.5.A, 3.5.B, 3.15.B, 4.1.A, 4.1.B, and 4.1.C. The CTS introductory statements which direct the TS user to the Tables which contain the Specification limits are not included. These statements are not necessary in the ITS format which contains all required references for internal guidance and consistency. This is an administrative change since these statements are not substantive and the ITS is complete without them.

- A 005 Tables 3.5-2A and 3.5-2B. The column heading has been revised to "Required Channels" to be consistent with the guidance of NUREG-1431. Functionally, the same number of channels is used and therefore this is an administrative change.
- A 006 Tables 3.5-2A and 3.5-2B. The columns titled, "Channels to Trip" and, "Minimum Channels Operable" have not been included in the ITS. The format of the ITS and the individual Action Statements within the ITS Conditions provide an indication of the number of channels which may be inoperable or the number which are allowed to be operable. For most of the functions in these tables, these format changes make these columns unnecessary and thus these columns are not included. Since this does not involve substantive changes, this is an administrative change. This change is consistent with the guidance of NUREG-1431.

In a few instances, the ITS format change does not accurately define the limits provided in the CTS. Those instances are individually addressed in separate Discussion of Changes.

Comment: The staff does not agree that the changes evaluated can be categorized as NSHD category A. The DOC discusses changes that result in deleting the limiting condition for operation requirement for "Minimum Channels Operable" from CTS Table 3.5-2A and deleting the RTS trip function design information "Channels to Trip" from Table 3.5-2A. Provide further explanation of the change categorization and the DOC statement that the change does not involve substantive changes.

- A 007 Tables 3.5-2A, 3.5-2B, and 3.15-1. The CTS Action Statement references have all been replaced the ITS Action Statement references. The CTS and ITS Action Statements do not have a simple one-to-one correspondence to each other. Any change in the Action Statement as it applies to the Table function is addressed in separate Discussion of Changes with the individual CTS Action Statement. Therefore this is an administrative change.
- A 008 Table 3.5-2A, Function 6, Table 4.1-1A, Function 6. To be consistent with the guidance of NUREG-1431, the general collective titles of the applicable modes for these requirements have not been included in the ITS. The applicable modes are specifically defined in the table and do not need to be described in the function title. Since no plant operational requirements are changed, this is an administrative change.

M 009 Table 3.5-1, Function 10. The actual title for the time delays has been included to provide clarity on which time delays are under consideration. The time range for degraded voltage DG start time delay (Time Delay 2) has been narrowed to reflect the actual time delay implemented at PI. When new DG were installed in 1992 a large time delay was specified due to lack of operating experience with this new plant feature. Since the time delay range is narrower, this is a more restrictive change. This change is acceptable since it will assure that the plant operates with the proper time delay for this function.

LR 010 Table 3.5-1, Function 8 and Table 4.1-1C, Function 24. The Steam Exclusion System (SES) actuation instrumentation and the associated setpoint have been relocated to the TRM. This is acceptable because the TRM will require this instrumentation to be operational. Since the TRM is licensee controlled, this is a less restrictive change. Changes to the TRM will continue to be under the regulatory controls of 10 CFR 50.59.

Comment: Relocated Current Technical Specification. Current TS proposed to be relocated to licensee controlled documents are required to be evaluated for retention in ITS per 50.36(c)(2)(ii). Provide a 50.36(c)(2)(ii) analysis to support a R-DOC NSHC classification.

A 011 Table 3.5-2A and Table 4.1-1A, Function 5, new note. For consistency with NUREG-1431, the Applicable Modes is modified by a note which limits the applicability in Mode 2 to above P-6. Since Mode 2 above P-6 is the only time that the intermediate range neutron flux is operational, the addition of this clarifying note is an administrative change.

Comment: The staff does not agree that the changes evaluated can be categorized as NSHD category A. The DOC change results in a change to the applicable conditions for which the instrument channels must be operable. The CTS requires the channels to be operable at all times in Mode 2. The ITS proposes a less restrictive applicability requiring only Mode 2 above the P-6 permissive setpoint. Provide an explanation of the difference between the CTS and the proposed ITS Applicabilities by giving a safety basis justification for all proposed CTS changes.

- M 012 Table 3.5-2A, Note a and Table 4.1-1A, Note 1. This note was modified to be consistent with ITS Table 3.3.1-1 Note a and the guidance of NUREG-1431. This change is more restrictive since it now includes the condition when one or more rods are not fully inserted. The other changes to this note provide clarification, but do not change the note substantively. This change is acceptable since it requires the affected portions of the reactor trip system to be operable under additional conditions which may improve the safety of plant operations.

Comment: Provide additional explanation to justify that the change which includes "when one or more rods are not fully inserted" and the changes that "do not change the [CTS] note substantively" are additional restrictions on plant operation that enhance safety.

- L 013 Table 3.5-2A and Table 4.1-1A, Functions 9, 11, 12, 13, 15, 16 and applicable Required Actions, new notes. The Applicable Modes for these functions are modified by notes which limit the Mode of Applicability of the specification consistent with the guidance of NUREG-1431. The Required Actions are modified to place the plant in the out-of-limit portion of the Mode of Applicability as remedial action. These changes are less restrictive since they further limit the applicability of the specification and may allow the plant to remain at a higher power level. These changes are acceptable since these functions are not assumed for the mitigation of any accident in the out-of-limit portion of the Mode of Applicability. Placing the plant in the out-of-limit portion of the Mode of Applicability removes the plant from the Mode or other conditions of Applicability. Thus these functions, in the out-of-limit portion of the Mode of Applicability, are not required and do not meet the TS Selection Criteria.

Comment: The changes evaluated as NSHD category L include changes that can be grouped as changes to CTS Applicable Mode and changes to CTS Action requirements. Provide a safety basis explanation for each proposed CTS applicable Mode and Action requirement change to show that these changes will not affect the safe operation of the plant.

- A 014 Table 3.5-2A, Functions 19 and 20, Note (d), and Table 4.1-1A, Functions 19 and 20 and Notes (15) and (16). In conformance with the guidance of NUREG-1431, the Reactor Trip Bypass Breakers have been included with the Reactor Trip Breaker rather than listed as a separate function. Since all specification requirements have been retained in the TS this is an administrative change.

- M 015 New Function 16 in Table 3.5-2A and Table 4.1-1A. In conformance with the guidance of NUREG-1431, a new Function 16 has been provided to include Reactor Trip System Interlocks, including appropriate Required Channels, Applicable Modes and Action Statements. Since this includes new specification requirements, this is a more restrictive change. This change is acceptable since it places additional requirements on plant operations that assure safe plant operation. This change does not create any unsafe plant conditions since the new TS requirements are consistent with current plant operating practices.

Comment: Provide additional discussion to explain how the CTS changes described as “appropriate Required Channels, Applicable Modes, and Action Statements” ensure safe plant operation and therefore are additional restrictions on plant operation that enhance safety.

- M 016 New Function 18 in Table 3.5-2A and Table 4.1-1A. In conformance with the guidance of NUREG-1431, a new Function 18 has been provided to include RTB Undervoltage and Shunt Trip Mechanisms, including appropriate Required Channels, Applicable Modes and Action Statements, as a separate Function. Since this includes new specification requirements, this is a more restrictive change. Table 4.1-1A Note 12 no longer applies to Function 19 because of the new Function 18. A new Note (j) is included to clarify to which breakers this function applies. This change is acceptable since it places additional requirements on plant operations that assure safe operation of the plant. This change does not create any unsafe plant conditions since the new TS requirements are consistent with current plant operating practices.

Comment: Provide additional discussion to explain how the CTS changes described as “Table 4.1-1A Note 12 no longer applies to Function 19 because of the new Function 18. A new Note (j) is included to clarify to which breakers this function applies” are additional restrictions on plant operation that enhance safety.

- M 017 Table 3.5-2A, Note d and Table 4.1-1A Note 16. This note was modified to be consistent with ITS Table 3.3.1-1 Note i and the guidance of NUREG-1431. This change is more restrictive since it now applies any time the RTBB is racked in and closed, whether or not the control rod system is capable of withdrawal. The other changes to this note provide clarification, but do not change the note substantively. This change is acceptable since it requires the affected portions of the reactor trip system to be operable under additional conditions which may improve the safety of plant operations.

- A 018 Table 3.5-2A and Table 3.5-2B, Actions. The CTS Action Statements are modified to be consistent with the format and content guidance of NUREG-1431. Since these changes do not add or remove any TS requirements, these are administrative changes. Any changes which do affect TS requirements are addressed separately.
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- A 019 Table 3.5-2A, Function 18 and Table 4.1-1A, Function 18. The title of this function has been revised to be consistent with the guidance of NUREG-1431 by deleting "and Interlock". The reactor trip system interlocks are addressed as a separate function and any changes in TS requirements are addressed in the Discussion of Change for this new function. Therefore, this title change is considered an administrative change.
- A 020 CTS Table 3.5-1, Function 5, Table 3.5-2B and Table 4.1-1B, Function 5d. These Specifications have been revised to be consistent with proposed LAR entitled, "Remove High Steam Flow Signal from Input to MSLI Logic." Since these changes are justified in that submittal, they are considered administrative changes in this submittal.

Comment: *BEYOND SCOPE ISSUE* - This item is OPEN pending receipt of the submittal and review of the proposed changes by the staff.

- A 021 Table 3.5-2A and Table 3.5-2B, Actions. The CTS Action Statements Mode titles have been replaced with the Mode numbers for consistency with NUREG-1431. Since the applicable Mode has not been changed, this is an administrative change. Also the Completion Times have been changed to require action times in total hours consistent with NUREG-1431 rather than the next increment of time as given in the CTS. Since the actual time to perform the actions is not changed this is also an administrative change.
- L 022 Table 3.5-2A, Actions 2 and 6, and Table 3.5-2B, Actions 21, 24 and 29. A new Required Action is included within these action statements to provide guidance when the CTS Required Actions are not met. This change is included in accordance with the guidance of NUREG-1431. In the CTS, if the Required Actions are not met, the plant would be required to enter CTS LCO 3.0.C (ITS LCO 3.0.3) which would require plant shutdown to MODE 5. This new Required Action allows the plant to avoid shutdown to MODE 5 and therefore this change is less restrictive. This change is acceptable, since the new Required Action places the plant in a safe condition in a Mode which is at a lower power level and outside the Mode of Applicability for the Specification.

- A 023 Table 3.5-2A, Action 3. CTS Required Actions for instrument inoperability prior to entering the Mode or other conditions of Applicability are not included. In accordance with ITS LCO 3.0.4, the plant can not change Modes to a higher power level with inoperable equipment, unless a specific exemption is stated. Since an exemption is not stated, this Required Action is unnecessary in the ITS and this is an administrative change.

Comment: The staff does not agree that the changes evaluated can be categorized as NSHD category A. The discussion of change states that CTS changes described as "Table 3.5-2A, Action 3[a]. CTS Required Actions for instrument inoperability prior to entering the Mode or other conditions of Applicability are not included." The CTS is incorrectly described. The CTS Function Intermediate Range, Neutron Flux is required to be operable in Mode 1 below the P-10 interlock and in Mode 2. The CTS Action requirements; "Below the P-6 (Intermediate Range Neutron Flux Interlock) restore an inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint." are deleted. Evaluate these CTS changes.

- L 024 Table 3.5-2A, Action 3. The Required Action when one intermediate range neutron flux channel is inoperable is modified to require the plant to reduce power or increase power so the plant is outside the Mode or other conditions of Applicability for this instrumentation. This change is consistent with the guidance of NUREG-1431. Since this change may allow plant startup to continue with an inoperable instrument channel, this is a less restrictive change. This change is acceptable, since this is a backup reactor trip which is not credited in any plant safety analyses. Safety is also assured since the plant continues to have the function of the redundant operable channel and the probability of its failure is low during the period when the power is increased. When the power is below P-6 or above P-10, the plant does not require intermediate range neutron flux instrumentation for safe operation.

Comment: Provide additional discussion to describe and evaluate each CTS change included in this DOC for adopting ITS Action F.1 which requires decreasing RTP below P-6; ITS Action F.2, which requires increasing RTP above P-10 and the 24 hour completion time for either F.1 or F.2.

- L 025 Table 3.5-2A, New Action G. CTS Table 3.5-2A, Action 3 allows for a single channel of the Intermediate Range Neutron Flux instrumentation to be inoperable. New Required Actions are included to address the condition when two intermediate range neutron flux channels are inoperable. Since CTS does not provide any guidance for this condition, CTS LCO 3.0.C (ITS LCO 3.0.3) would be required to be entered. LCO 3.0.C requires the plant to be in MODE 3 within 7 hours. The new CTS action, ITS Required Actions G.1 and G.2, require immediate suspension of operations involving positive reactivity additions and reduction in power below P-6 within 2 hours. Since this allows the plant to remain critical, this is a less restrictive change. This change is acceptable since the safety analysis does not credit the Intermediate Range channels. The plant can safely remain critical below P-6 indefinitely since this is outside and below the Modes of Applicability for the Intermediate Range channels. Furthermore, this change provides additional plant safety by requiring actions applicable to this specific condition, that is, suspension of operations involving reactivity additions. This change is consistent with the guidance of NUREG-1431 as modified by approved traveler, TSTF-286, Revision 2.

Comment: Clarify the discussion of change; "This change is acceptable since the safety analysis does not credit the Intermediate Range channels. The plant can safely remain critical below P-6 indefinitely since this is outside and below the Modes of Applicability for the Intermediate Range channels. Furthermore, this change provides additional plant safety by requiring actions applicable to this specific condition, that is, suspension of operations involving reactivity additions." to show that the addition of ITS Condition G to CTS requirements will not affect the safe operation of the plant.

- M 026 Table 3.5-2A, New Action I. A new action is included to address the condition when two source range neutron flux channels are inoperable. CTS does not provide any specific guidance for this condition and therefore LCO 3.0.C would be entered. This is a more restrictive change since the ITS requires the reactor trip breakers to be immediately opened. This action assures the plant is operated in a safe manner. This change is acceptable since it is consistent with current plant practices to operate the plant in a conservative manner.

Comment: New Action I addresses the condition of 2 source range neutron monitors inoperable. DOC M-026 discusses the changes that involve the operating mode, Mode 2 below P-6, that require source range monitors. DOC M-026 also applies to ITS Action I during shutdown operational modes, Modes 3, 4 and 5. Provide the appropriate NSHD category for changes to CTS that adopt ITS Condition I for the shutdown modes.

- A 027 Table 3.5-2A, Actions 5 and 8. This Action Statement has been modified to provide the option of initiating action to insert all rods and prevent rod withdrawal in lieu of opening the RTBs. These changes are consistent with the guidance of NUREG-1431 as modified by approved traveler, TSTF-135. These changes provide plant protection which is equivalent to that provided in the CTS therefore this is an administrative change.

Comment: Based on the discussion of change the staff cannot make a determination that the changes analyzed should be categorized as NSHD category A. On page 17 of 72, CTS Actions are "suspend," "restore," or "Open RTB," as compared to proposed ITS Actions to "restore," or "initiate," and "place." On page 19 of 72, CTS Actions are "Restore in 48 hours," or "Open RTB in next hour," as compared to proposed ITS Actions to "Restore," or "Insert rods and make Rod Control System incapable of rod withdrawal."

- A 028 CTS 2.3.B.1, 2.3.B.2, 2.3.B.2.a, 2.3.B.2.b, 2.3.B.4, and 2.3.B.5. CTS uses a mixture of "unblocked" and "blocked" terminology when describing the use of the reactor trip interlocks. The specific terminology used determines the direction of the inequality on the allowable value. To be consistent with NUREG-1431, only the term "blocked" is used and the direction of the inequality has been reversed where "blocked" has replaced "unblocked". This change only involves a change in terminology and convention, and does not cause any change in plant operation, limits or testing. Since there are no substantive changes, this is an administrative change.

- A 029 CTS Table 3.5-2A, Actions 1, 7, 8, 9, and 10, and Table 3.5-2B, Actions 20, 23, 25, and 28. The format for CTS and ITS fundamentally differ in the presentation of shutdown tracks in that the CTS states the incremental time to shut down to the next MODE. ITS shutdown tracks state the total time within which the next MODE must be entered. The total Completion Time for both format is the same. The CTS format has been changed to the ITS format. Since there is no net change in plant operations, this is an administrative change.

Comment: ~~For Action 9 and 10 show that for CTS the total time to place the plant in hot shutdown is 7 hours.~~

<<Comment is withdrawn following telephone discussions July 11-12, 2001 with the licensee>>

Comment (New): There is a mismatch between CTS Action 25 markup and the ITS LCO 3.3.2, Condition F. Additions and deletions to Action 25 are not evaluated in this DOC. Revise the submittal to provide missing justification.

- L 030 CTS Table 3.5-2A, Action 4. CTS requires suspension of ". . . all operations involving positive reactivity changes" when one Source Range Neutron Flux channel is inoperable. ITS requires suspending operations involving reactivity additions and further clarifies that cooldown or boron dilution is allowed when it is accounted for in the calculated SDM. The specified SDM assures that the reactor will remain subcritical, and thus safe. This change is acceptable because plant safety is assured by meeting the SDM requirements during allowed reactivity changes. This change is less restrictive since it allows additional plant operating flexibility. This change is consistent with the guidance of NUREG-1431 as modified by approved TSTF-286, Revision 2.

- L 031 CTS 2.3.A.2.a, 2.3.A.2.b, 2.3.A.2.c, 2.3.A.2.f, 2.3.A.2.g, 2.3.A.2.i.1, 2.3.A.2.i.2, 2.3.B.2.b, 2.3.B.3, 2.3.B.4, Table 3.5-1, Functions 3 and 5.

CTS Section 2.3, "Limiting Safety System Settings, Protective Instrumentation, " provides limits for RCS protective instrumentation. Most of these limits were established prior to Unit 1 startup in December 1973. These limits do not serve a uniform purpose in PI operations; that is, some of these values may be Limiting Safety System Settings, some may be Allowable Values, some may be Analytical Limits, and some may be Nominal Trip Setpoints as the nuclear industry now understands these terms consistent with approved traveler, TSTF-355, Revision 0. These values do have a commonality in that they all provide for instrument uncertainty. CTS Table 3.5-1, "Engineered Safety Features Initiation Instrument Limiting Set Points" provides limits for Engineered Safety Features instrumentation. Most of these limits were also established prior to Unit 1 startup in December 1973. These limits do not have a regulatory definition and thus have been characterized as "limiting set points". Like the values in CTS Section 2.3, these values also provide for instrument uncertainty.

The NRC recognizes that the methods for treatment of instrument uncertainty have evolved over the years. This evolution of the treatment of instrument uncertainties is discussed in NUREG-0138, "Staff discussion of fifteen technical issues listed in attachment to November 3, 1976 Memorandum from Director NRR to NRR Staff." As discussed in NUREG-0138, prior to October 1974 a generalized method of addressing instrument uncertainty for instrumentation setpoints was used. This method was described as the following: "In this approach, the discrete components of each of the margins to safety in trip setpoint values are not evaluated on an individual basis but are included in an overall safety margin. Each setpoint value is based upon the most limiting transient or postulated accident condition associated with the bases for that setpoint. The magnitude of this safety margin and the resulting setpoints are established to ensure that there is a low probability of the margin being removed by an adverse combination of instrument calibration error, instrument error and instrument drift. The Staff believes that this method is acceptable."

The NRC Staff, in NUREG-0138, proceeded to delineate their future intention for the treatment of instrument uncertainties for instrument setpoints in the Technical Specifications. The NRC Staff concluded in this NUREG the following: "The staff is, however, changing from a generalized method of trip setpoint evaluation to a method that considers each of the discrete factors that make up the margins of safety for each safety related instrumentation channel. Either method contains conservatism; however, the newer method will allow the safety margin in the trip setpoints to be quantified in a more detailed manner. In addition, consideration of instrument error will be explicit in the newer method, whereas previously it was an implicit assumption presumed to be considered as part of the overall margin." Guidance which embodies NRC acceptable methods for determining instrumentation setpoints for safety-related Technical Specification Limiting Safety System Settings (LSSS) is documented in Regulatory Guide 1.105, industry standard ISA S67.04 and associated practices, and subsequent plant specific methodology approvals. NRC

L 031 (continued)

In support of the conversion of Prairie Island Technical Specifications to conform to the guidance of NUREG-1431, as modified by TSTF-355, PI developed a detailed setpoint methodology, "Engineering Manual Section 3.3.4.1, Engineering Design Standard for Instrument Setpoint/Uncertainty Calculations," (Methodology) in accordance with the guidance of Regulatory Guide 1.105 and ISA S67.04 and associated practices. This Methodology provides the allowable value for each of the instruments in Specifications 3.3.1, 3.3.2 and 3.3.4. Some of these allowable values are coincident with the CTS values and no change is indicated. Many of the allowable values differ in an apparent more conservative direction while others have moved to an apparent less conservative value. Since there are apparent changes in both directions, these are considered less restrictive changes.

These changes have been characterized as "apparent" changes since it can be argued that there have not been real changes in the plant margins of safety. The intent of the Methodology is to maintain or improve the current plant margins of safety. However, some values presented in the ITS have changed because: 1) these values are now all consistent as "allowable values" whereas in CTS the presented values may serve differing purposes; and 2) the CTS values are based on early 1970's generalized methods for addressing instrument uncertainty whereas ITS values are based on the Methodology using discrete components for each margin of safety which is consistent with current industry practices. Thus, where ITS uses apparently more conservative values, the CTS is not deficient because the methodology is different and was acceptable at the time these values were established. Where ITS uses apparently less conservative values, the ITS is acceptable because these values have been established using methodology in accordance with current NRC and industry guidance, and maintain or improve the current plant margins of safety. These changes are also consistent with the guidance of NUREG-1431 as modified by approved traveler, TSTF-355.

Comment: *BEYOND SCOPE ISSUE* - The changes discussed in NSHD L-031 establish new TS limits in the ITS format. As a result, these changes are beyond scope changes that require review and approval by the technical staff.

- M 032 Table 3.5-2A, Action 9. The Required Actions of Part a. of this Action Statement has been modified to be consistent ITS LCO 3.3.1 Condition S which conforms with the guidance of NUREG-1431. The maintenance exception of Part a. of this Required Action is included with Note 2 in Condition P. CTS allow the breaker to be bypassed to perform maintenance and testing to restore the diverse trip feature to operable status without any stated time limit. As ITS Condition P Note 2, the time the breaker may be bypassed is limited to 4 hours, thus this is a more restrictive change. Providing a specific time limit is acceptable and does not cause an unsafe plant condition since most maintenance and testing would normally be performed in this time frame.

Comment: Identify the portion of the CTS Action 9 markup that this DOC applies to. If Condition P, Note 2 is being justified.... provide safety analysis and design basis discussion for changing STS 2 hour bypass AOT to 4 hours.

- L 33 Table 3.5-2A, Action 9 Part b. and Action 10. These Action Statements have been modified to be consistent with ITS LCO 3.3.1 Condition P which conforms with the guidance of NUREG-1431. The changes include an additional hour to restore an inoperable breaker to operable status prior to initiating plant shutdown to MODE 3 and therefore this is a less restrictive change. These changes are acceptable since some time should be allowed to attempt restoration and one hour is consistent with the provisions of CTS LCO 3.0.C (ITS LCO 3.0.3). Allowing the one hour may avoid a plant shutdown evolution which has attendant risks.

~~Comment: Based on the discussion of change the staff cannot make a determination that the changes analyzed are acceptable. Provide safety analysis and design basis discussion for all proposed changes.~~
<<Comment is withdrawn following telephone discussions July 11-12, 2001 with the licensee>>

- A 034 Table 3.5-2A, Action 10. The provisions of this Action Statement which address an inoperable RTBB prior to use are not included. The ITS rules of use do not permit placing inoperable equipment into service; therefore these provisions are unnecessary. Since this change does not affect plant operations, this is an administrative change. This change conforms to the guidance of NUREG-1431.

Comment: Based on the discussion of change the staff cannot make a determination that the changes analyzed are acceptable. RTBBs are components of RTBs, as such, ITS footnote (i) [STS footnote (k)] establishes RTBB operability requirements. Provide safety analysis and design basis discussion for all proposed CTS changes.

- A 035 Table 3.5-2B, Functions 1e, 2c, 3c, 4f, 5e, 6d, and 7f, Table 4.1-1B, Functions 1e, 2c, 3c, 4f, 5e, 6d, and 7f. The title of the logic portion of these instrumentation systems is revised to more accurately describe the function at PI. PI has relay logic and does not have actuation relays as a separate part of the logic function; thus the title, "Automatic Actuation Relay Logic" is more correct. The CTS title is the same as the NUREG-1431 title due to an LAR to conform to the guidance of the NUREG. However, this title is incorrect and misleading. Since no changes in function, testing or other TS requirements are involved, this is an administrative change.

Comment: There are some nomenclature/design mismatches with this DOC, the proposed ITS Bases and TOPS amendments #111 and #104 regarding the DOC statement that PI has relay logic, but not actuation relays as a separate logic function. The staff notes that the ITS Bases states "initiating relay contacts" [ESF] are "included in ESF relay logic cabinets." The staff SER for amendments #111 and #104, and ITS Bases discussion of the PI design appear to support retaining the ISTS ESFAS function name "Automatic Actuation Relay Logic" in the ITS. Revise the submittal to adopt the ISTS ESFAS nomenclature for the above Table TS 3.5-2B Functional Units in ITS.

- L 036 Table 3.5-2B and Table 4.1-1B, Function 1.b. CTS Applicability for this function in MODE 4 is not included in the ITS which is consistent with the guidance of NUREG-1431. This change is acceptable since there are no accident analyses which credit SI performance in MODE 4. Furthermore, there is insufficient energy in the primary or secondary systems to pressurize the containment and the operators will have sufficient time to respond to an accident; thus automatic initiation of SI on high containment pressure in MODE 4 is unnecessary.

Comment: The BASES discusses the low probability of an event requiring SI on high containment pressure. This discussion is absent in both DOC L-036 and the NSHD. Revise the DOC and NSHD. Include probability analysis to support the proposed ITS Bases. Additionally, compare this NSHD discussions to the NSHD for Containment Spray initiation in MODE 4 on a high containment pressure signal. The CS NSHD does not use probability considerations as reasons for not requiring the function to be operable in MODE 4.

- L 037 Table 3.5-2B and Table 4.1-1B, Function 2.b. CTS Applicability for this function in MODE 4 is not included in the ITS which is consistent with the guidance of NUREG-1431. This change is acceptable, since in MODE 4 there is insufficient energy in the primary or secondary systems to pressurize the containment to reach the High-High setpoint; thus automatic initiation of containment spray on high containment pressure in MODE 4 is unnecessary.
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- A 038 Table 3.5-2B, Note a and Table 4.1-1B, Note 21. This note has been modified to be consistent with NUREG-1431 Table 3.3.2-1 Note a. The meaning and use of this note is the same in both applications since it states that the function is not required below 2000 psig in the RCS. Since there is no change in the meaning or application, this is an administrative change.
- A 039 Table 3.5-2B, Note b and Table 4.1-1B, Note 26. This note has been modified to be consistent with NUREG-1431 Table 3.3.5-1 Notes a and b. The meaning and use of this note is the same in both applications since it states that the function is required when containment integrity is required and during movement of irradiated fuel in containment when this system is operating. Since there is no change in the meaning or application, this is an administrative change.
- A 040 New Hi-Hi Steam Generator Level Allowable Value. CTS includes operability requirements for Hi-Hi Steam Generator Level input.
- Comment: BEYOND SCOPE ISSUE - The acceptability of the new ITS Allowable Value ($\leq 90\%$) is open pending staff review.**
- A 041 A new note has been included to provide clarity to the plant operators that this RTS function does not provide a direct reactor trip.
- Comment: The staff does not agree that the changes evaluated can be categorized as NSHD category A. CTS Table 3.3-1, Note (g) appears to be design information that is appropriate for the ITS Bases.
- L 042 Table 3.5-2B and Table 4.1-1B, Function 5. Applicability in MODE 2 for each element of this Function is modified by a note which does not require this specification to be applicable when both MSIVs are closed. Since this change limits the applicability of this specification, this is a less restrictive change. This change is acceptable since the steam line isolation safety function is met passively without this instrumentation operable in accordance with the Specification when both MSIVs are closed. This change conforms to the guidance of NUREG-1431.
- A 043 Table 3.5-2B, Note c and Table 4.1-1B, Note 23. The format of this note has been revised to conform to the guidance of NUREG-1431. The note has been restated but has the same meaning, therefore this is an administrative change.

- LR 044 Table 3.5-2B, Function 6c and Table 4.1-1B, Function 6c. The feedwater isolation on a reactor trip with 2 of 4 low T_{ave} function is not included in the ITS which is consistent with the guidance of NUREG-1431. This change is acceptable since this function does not detect RCS leakage, it is not a design feature that is an initial condition of a design basis accident, it is not a component or design feature that is part of the primary success path to mitigate a design basis accident and it has not been shown to be significant to public health and safety. Since it does not meet these criteria for a TS as defined in 10CFR50.36 it will be relocated to the TRM where it will be under the regulatory controls of 10CFR50.59. Since this function will be under licensee control, this is a less restrictive change.

Comment: 10 CFR 50.36, Criterion 1 requires instrumentation to be included in TS which detects and indicates “a significant abnormal degradation of the reactor coolant pressure boundary.” This requirement includes functions that do more than “detect leakage” as stated in the above DOC discussion. Provide additional evaluation to show the proposed instrumentation to be relocated are not required to be included in TS based on 10 CFR 50.36, Criterion 1.

- L 045 Table 3.5-2B and Table 4.1-1B, Function 6. Applicability in MODE 2 for each element of this function is modified by a new note which does not require this specification to be applicable when all MFRVs and MFRV bypass valves are closed and in manual or isolated by a closed non-automatic valve. Since this change limits the applicability of this specification, this is a less restrictive change. This change is acceptable since the feedwater line isolation safety function is met passively without this instrumentation operable in accordance with the Specification when the conditions of the new note are met. This change conforms to the guidance of NUREG-1431.

Comment: Proposed changes to MODE 2 requirements do not give a sufficient safety, design or licensing basis for the relaxation in applicability requirements for steam line isolation functions. Provide additional discussion giving specific attention to the content of MODE 2 Note (x).

- LR 046 Table 3.5-2B and Table 4.1-1B, Function 7a. The AFW manual initiation function is not included in the ITS which is consistent with the guidance of NUREG-1431. This change is acceptable since the manual AFW pump switch only starts the pump as opposed to actuating the system and manual operations of the pumps to support plant startup and cooldown will verify operability of the switches. This function will be relocated to the TRM where it will be under the regulatory controls of 10CFR50.59. Since this function will be under licensee control, this is a less restrictive change.
- A 047 Table 3.5-2B, Function 7. The title for this function is changed to delete “4.16 kV” since this is unnecessary redundant information in the title. Since this is only a title change, this is an administrative change.
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- A 048 Table 3.5-2B, Footnote and Table 4.1-1B, new note. This note has been revised to agree more closely with the wording used in LCO 3.7.5. The meaning and applicability have not been changed, therefore this is an administrative change.

Comment: Provide additional discussion to show that proposed ITS is equivalent to CTS bypass allowances.

- M 049 Table 3.5-2B, Function 6d. To be consistent with the format and guidance of NUREG-1431, the feedwater isolation logic is required to be operable in Mode 3 (except as modified by the note) since these valves are required to close in response to an SI signal. This change imposes a TS requirement for this logic to be operable. Since this is a new TS requirement, this is a more restrictive change. This change is acceptable since it assures the plant is maintained in a safe condition. Also the plant design requires this logic to be operable when the SI logic is operable.
- A 050 Table 3.5-2B, Function 9 and Actions 34, 35, and 36. This Specification requirement was deleted by LAR entitled, "Removal of Boric Acid Storage Tanks from the Safety Injection System," submitted April 17, 2000. Since this change was justified in that submittal, this is considered an administrative change in this submittal.
- A 051 Table 3.5-2B and Table 4.1-1B, Function 7d. CTS subdivides this into two sub-functions for the turbine driven AFW pump and the motor driven AFW pump. However, the specification requirements for these two sub-functions are identical. Thus, in conformance with the guidance of NUREG-1431, this is presented as a single function. Since the specification requirements remain the same, this is an administrative change.
- M 052 Table 3.5-2B, Function 8. A new condition of applicability is provided for the loss of power function which requires this function to be OPERABLE, "When associated DG is required to be OPERABLE by LCO 3.8.2, 'AC Sources - Shutdown'." Since this change places additional TS requirements on plant operations, this is a more restrictive change. This change is acceptable since it is generally consistent with current plant practices and does not cause the plant to be operated in an unsafe manner.

- L 053 Table 3.5-2B, Action 22. In conformance with the guidance of NUREG-1431, this action statement has been modified to allow this system to continue operating for up to 4 hours with one train of radiation monitoring inoperable. Since this change may allow additional operating flexibility, this is a less restrictive change. This change is acceptable since it is usual to allow some time to operate with one train of equipment inoperable when the redundant train is operable and able to perform the safety function.

Comment: Provide additional discussion for this proposed less restrictive change. Show that the proposed 4 hour time period will not affect safe operation of the plant. Include discussion of single channel failure and its impact on loss of radiation monitoring for analyzed events. Also, discuss the likelihood of other channel failure events during the 4 hour proposed allowed outage time and the effectiveness of remaining required channels to perform the radiation monitoring function. Action 22 also applies to Table 3.5-2B Manual and Automatic Actuation Logic and Actuation Relays Containment Ventilation Isolation Instrument functions. DOC L-53 does not contain discussion of action statement changes related to these functions that are proposed for ITS. Provide discussion to document CTS changes proposed for ITS.

- A 054 Table 3.5-2B, Action 22. Since this system is normally blind flanged and therefore not operating, this action statement is modified to reference the specifications which govern its operation. This change is only a clarification which does not change any specification requirements or affect plant operations, therefore; this is an administrative change.

Comment: Table 3.5-2B, Action 22 is shown with changes that include a parenthetical reference to ITS LCO 3.6.3 and 3.9.4. DOC L-54 does not contain discussion of this, and other CTS action statement changes proposed for ITS. Provide a safety basis discussion to document CTS changes proposed for ITS.

- A 055 Table 3.5-2B, Action 30. The last sentence of this action statement allows one channel to be bypassed for up to 8 hours for surveillance testing. This provision is not included in the ITS in accordance with the guidance of NUREG-1431. Due to the relay logic design of the AFW logic, this change does not change the capability to test this system; thus this is an administrative change.

Comment: Table 3.5-2B, Action 30, surveillance test bypass, for an inoperable Actuation Logic train is included in the STS [for 4 hours not 8 hours] but is not proposed for the ITS. This change and the change proposed in ITS required actions to declare the associated AFW train inoperable vice the CTS action to declare the associated AFW pump inoperable are not evaluated in the submittal DOC. All CTS deletions and additions must be justified. Provide less restrictive discussions of change for these proposed actions. Also revise the ITS Action I.1 to adopt the ISTS format for declaring supported features inoperable (See NUREG-1431, LCO 3.7.7, Required Action A.1).

- A 056 Table 3.5-2B, Action 32. This Action Statement has not been included in the ITS. The LCO, action statements and required actions have been revised to be more technically correct by redefining the channels. Thus the condition when two channels are inoperable is addressed in CTS Action 33 and the required actions in CTS Action 32 are not applicable in this new format; thus, Action 32 is not included in the ITS. Since this change does not change any plant operating conditions, this is an administrative change.
Comment: Revise ITS to include NUREG-1431 Condition B modified to be consistent with CTS Action 32 for two inoperable channels per bus.
- M 057 Table 3.5-2B, Action 33. This Action Statement has been revised to take the required action when two channels per bus are inoperable since the definition of channels has been redefined in the LCO to be more technically correct. Also, CTS requirements to declare the DGs out of service have been revised to declare the load sequencer out of service. These changes have been made to be more consistent with the philosophy of NUREG-1431 and provide an improved response to these plant conditions. Since this change will impact more plant equipment, this is a more restrictive change. This change will assure that the plant is maintained in a safe condition and does not introduce any new safety concerns.
Comment: Revise ITS to include NUREG-1431 Condition C to be consistent with CTS Action 33 for Conditions A or B not met.

- L 058 Table 3.5-2B, Action 21. CTS allows high-high containment pressure channels to be inoperable provided they are placed in a tripped position. However, with two channels in the tripped position, the containment spray system could actuate on a single spurious signal. The ITS will allow two channels to be inoperable with one channel tripped and one channel bypassed. This is desirable because it prevents the containment spray system from actuating on a single spurious signal. This change is acceptable since only two additional high-high pressure signals are required to actuate the system (compared to three normally). This change involves both more restrictive and less restrictive requirements; thus this is treated as a less restrictive change.

Comment: BEYOND SCOPE ISSUE - For the high high containment pressure actuation of containment spray CTS require 3 channels with 2 sensors per channel to be operable (total) and 3 channels with 1 sensor per channel (minimum) to be operable. The actuation logic is 1 out-of 2 taken 3-times (3 sets of 2) such that two sets actuate containment spray. In the CTS any inoperable channel must be tripped within 6 hours and one inoperable channel may be bypassed for up to 4 hours as long as the minimum channels operable requirement is met. The ITS requires 6 channels (3 sets of 2) of high high containment pressure to be operable. Provide a detailed discussion, include discussion of what constitutes a channel as it applies to high high containment pressure instrumentation, that justifies changing the CTS channels required to be operable.

ITS proposes Condition D (one inoperable channel) and Condition E (two inoperable channels) for this function. Proposed Condition D (like NUREG-1431 for a 3 sets of 2 channels trip logic) required actions are consistent with CTS Action 21 requirements for one inoperable channel. However, for multiple inoperable channels the CTS would allow operation to continue provided the inoperable channels are tripped within 6 hours, whereas, the STS requires entry into LCO 3.0.3.

- L 058 (Continued)

ITS Condition E, however, represents a change to both CTS and to NUREG-1431. As proposed, required actions in Condition E permit indefinite plant operation with one channel in bypass. This less restrictive change to the PI licensing basis is not justified. Adopt NUREG-1431 Condition D or CTS for containment high pressure actuation of containment spray.

- M 059 CTS 3.7.A. Current TS do not explicitly require the automatic load sequencers to be operable. For the purpose of completeness and consistency with NUREG-1431 requirements, new specification requirements including an LCO statement, action statements and supporting Bases have been included in the PI ITS. This new specification implements the intent of ISTS 3.8.1 and its action statements. However, as discussed in Part F, Change X3.3-312, this new specification requirement is included in PI ITS LCO 3.3.4. Since this is new specification requirement in the TS, this is a more restrictive change. This new specification requirement is consistent with current plant practices for equipment operability and testing and therefore will not cause any unsafe plant operations or testing.

Comment: NUREG-1431 establishes TS requirements for automatic load sequencers in LCO 3.8.1. For the purpose of completeness and consistency with NUREG-1431 revise the ITS to include sequencer operability requirements in LCO 3.8.1.

- M 060 CTS Table 3.5-2B, Action 28. To be consistent with the guidance of NUREG-1431, a new requirement to reduce power to MODE 4 or shut the main steam isolation valves is included. This change is more restrictive in that it requires additional actions or reduction of plant power with 18 hours. This change is acceptable since it will maintain the plant in a safe condition and not introduce any unsafe plant operating conditions or tests.
- M 061 New Required Actions, LCO 3.3.4, C and D, have been included to address plant conditions when an automatic load sequencer is inoperable. Since CTS do not have requirements for an inoperable load sequencer, this is a more restrictive change. These changes are included to make the ITS complete and technically accurate. These changes provide conservative management of the plant and assure that it is maintained in a safe condition. These changes do not introduce any new safety concerns.

Comment: See JFD 3.3X-312, move sequencers to LCO 3.8.1.c.

- A 062 3.15, Objective. The CTS Objective statement is not included in the ITS which is consistent with the guidance of NUREG-1431. An objective statement is not necessary since the ITS has detailed Bases which provide background on each specification. Since this statement does not provide operational restrictions or requirements, this is an administrative change.
- A 063 3.15.C. The CTS statement which allows the plant to start up with inoperable Event Monitoring equipment has been revised to be consistent with the guidance of NUREG-1431. Since the meaning and applicability of the statement has not changed, this is an administrative change.
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- M 064 3.15.D. The CTS statement which takes exception to CTS LCO 3.0.C (ITS LCO 3.0.3) is not included in the ITS which is consistent with the guidance of NUREG-1431. ITS LCO 3.0.3 provides TS guidance when no other guidance is provided and therefore exception is not taken for the possibility that ITS Specification 3.3.3 might not always provide the required guidance. This change is more restrictive since it may require plant shutdown if Specification 3.3 requirements are not met or do not provide guidance for all conditions. This change is acceptable since the requirement to comply with LCO 3.0.3 provides conservative actions to maintain the plant in a safe condition when no other TS guidance is available.
- A 065 Table 3.15-1, Function 9. The descriptive term "Penetration Flow Path" has been included which makes this Function name consistent with NUREG-1431 as modified by TSTF-295. This phrase is included to clarify the requirements for this function. Since changing the function name does not change any specification requirements, this is an administrative change.
- A 066 Table 3.15-1, Actions 5 and 6. Minor wording changes were made to be consistent with the requirements included in the ITS. These changes do not change the requirements or applicability and therefore these are administrative changes.

Comment: Provide DOC discussion to explain that this CTS allowance is included in the ITS as LCO 3.0.1.

- L 067 Table 3.15-1, Note b. The phrase "or check valve with flow through the valve secured" has been included in the ITS to be consistent with NUREG-1431 guidance. Since this may provide operational flexibility, this change is less restrictive. This change is acceptable, since a check valve with flow through the valve secured provides a containment leakage prevention barrier equivalent to the other methods listed in this note.
- A 068 A new note has been included in the Event Monitoring Table to clarify that each core exit thermocouple (CET) is a channel. This allows the terminology of the 3.3.3 Conditions to be applied to the CETs. The name of Function 15 has changed "Thermocouples" to "Temperature" to be consistent with NUREG-1431. Since these changes do not introduce any technical changes, these are administrative changes.

Comment: Two changes are evaluated with this A-DOC. Provide design information to support the DOC statement that the proposed ITS statement "clarifies that each CET is a channel" is consistent with CTS assumptions and total thermocouples in each channel.

- A 069 A new Condition H has been included to be consistent with the format guidance of NUREG-1431. Condition H requires entry into the ITS Table 3.3.3-1 as required by the other conditions. Since this change does not involve any technical changes, this is an administrative change.

- 70 Not used.
- 71 Not used.
- A 072 Table 4.1-1A and Table 4.1-1B. The column title, Functional Test, is deleted since it is not needed in the ITS format. Each SR is defined by the type of surveillance that is required. The SRs listed in this column may correlate to different types of tests such as TADOT, COT, or ALT; thus this column title is not appropriate. Since no plant operational requirements are associated with this change, this is an administrative change.
Comment: ~~Based on the discussion of change the staff cannot make a determination that the changes analyzed are acceptable. Provide safety analysis and design basis discussion for all proposed changes, e.g., CTS Function 1 (Manual Trip) and Function 17 (SI Trip) require a Refueling interval Functional Test. In the ITS the current TS surveillance becomes a refueling interval TADOT and Note (ITS SR 3.3.1.14).~~
<<Comment is withdrawn following telephone discussions July 11-12, 2001 with the licensee>>
- M 073 Table 4.1-1A, Function 2, 3, 6. To be consistent with the guidance of NUREG-1431, a note has been included with this SR which will require verification that interlocks P-6 and P-10 are in their required state for existing unit conditions and will require performance of the SR within 12 hours after reducing power below P-10 for power and intermediate range instrumentation and within 12 hours after reducing power below P-6 for source range instrumentation. Since this change may require additional performances of this SR and verification of additional equipment, this is a more restrictive change. This change is acceptable since performance of this SR does not compromise the safety of the plant.

Comment: The DOC frequency discussions "and will require performance of the SR within 12 hours after reducing power below P-10 for power and intermediate range instrumentation and within 12 hours after reducing power below P-6 for source range instrumentation." are not included in the ITS. CTS Note 10 applies to SRNMs in Modes 3, 4 and 5. The ITS markup shows CTS Note 10 applies to Table 4.1-1A, Functions 2.b, 5 and 6A for modes other than 3, 4 and 5. Provide DOC discussion for CTS changes.
- L 074 Table 4.1-1A, Function 5. The response time testing for this instrumentation has not been included in the ITS. This change is consistent with the guidance of NUREG-1431 which does not require response time testing for this instrumentation. This change is acceptable since the intermediate range trip is a backup function and the safety analyses do not credit this instrumentation with tripping the reactor. Since less testing may be required, this is a less restrictive change.
Comment: Explain the PI licensing basis for verifying IRNM response times.

- LR 075 Table 4.1-1A, Function 2a. CTS requires monthly and quarterly calibration of this instrumentation under the Function of Neutron Flux Power Range - High Setpoint. ITS has relocated these SRs (SR 3.3.1.3 and 3.3.1.6) to Overtemperature ΔT (which is consistent with NUREG-1431) and Overpower ΔT Functions. This is more appropriate for the purpose of these SRs. This change is acceptable since the SR will continue to be performed as TS requirements.
Comment: Provide a current license basis discussion justification for the relocation. Include less restrictive discussions for calibration surveillance tests, identified as Notes, that are no longer performed on Power range flux instrumentation.
- M 076 Table 4.1-1A, Function 7, 8. Two additional SRs have been included for these functions to be consistent with the guidance of NUREG-1431. These SRs are also consistent with the SRs for the Power Range Neutron Flux instrumentation. Since these are included in the TS as SRs, these are more restrictive changes. These changes are acceptable since they are included in SRs currently performed for the plant and do not introduce any safety concerns.

Comment: Provide a safety basis analysis for requiring ITS SR 3.3.1.3 and SR 3.3.1.6 as operability tests for OTDT. For Table 4.1-1A Function 7, 8 provide discussion for surveillance M(6,7) in Table 4.1-1A becoming ITS SR 3.3.1.13 and for surveillance Q(7,8) in Table 4.1-1A becoming ITS SR 3.3.1.6, including SR Notes. For OPDT, addition of SR 3.3.1.3 and SR 3.3.1.6 are new tests.
- L 077 Table 4.1-1A, Function 13. The CTS requirement to calibrate the Turbine Stop Valve Closure has not been included to be consistent with the guidance of NUREG-1431. This change is acceptable since the stop valve is either open or closed and therefore there is not any instrumentation which requires calibration.

Comment: The discussion above does not provide a sufficient safety basis for the proposed CTS changes. The staff notes that the CTS markup shows the "refueling" interval calibration deleted, yet the STS includes a refueling interval calibration as SR 3.3.1.10 for the Turbine Trip Turbine Stop Valve Closure function. Thus the staff views the proposed ITS as a BSI issue.
- 078 Not used.
- 079 Not used.
- 080 Not used.
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- A 081 Table 4.1-1A, Functions 15, 16b. This CTS test is modified by a note which states that verification of setpoints is not required. The test with which this note has been included is a TADOT on the RCP undervoltage and underfrequency relays. Setpoint verification is not required by CTS; thus this note is simply a clarification and no substantive changes are involved. Therefore, this is an administrative change. Comment: Based on the above discussion the staff cannot make a determination that CTS Table 4.1-1A requirements for RCP undervoltage and underfrequency functions does not include setpoint verification. What Table 4.1-1A requirements eliminate the setpoint verification for Functions 15, 16b? Clarify the RCP undervoltage testing required by CTS. The ISTS markup shows only RCP underfrequency, undervoltage applies to Buses 11 and 12 (21 and 22) not the RCP.
- L 082 Table 4.1-1A, Function 16. To be consistent with the guidance of NUREG-1431, the CTS requirement to calibrate the RCP Breaker Open function has not been included. This change is acceptable since the RCP Breaker is either open or closed and therefore there is not any instrumentation which requires calibration. Comment: The staff notes that the guidance of NUREG-1431 does not include requirements related to RCP Breaker Open functions. Based on the above discussion the staff cannot make a determination that proposed deletion of current requirements to conduct a refueling interval channel calibration is acceptable. Provide discussion that establishes a safety basis for proposed ITS surveillance requirements.
- L 083 Table 4.1-1A, Function 16. The CTS requirement to functionally test the RCP Breaker Open trip instrumentation prior to each startup after the reactor has been shutdown for more than 2 days if not tested in the previous 30 days has been replaced by the requirement to perform this SR every 24 months (during a refueling outage) which is consistent with the guidance of NUREG-1431. This change is acceptable since this equipment usually passes this test and the ITS and CTS requirement is nearly the same except some additional testing may be required under the CTS if there are intermediate cycle shutdowns of a unit. Since less testing may be required this is a less restrictive change. Comment: The staff notes that the guidance of NUREG-1431 does not include requirements related to RCP Breaker Open functions. Based on the above discussion the staff cannot make a determination that proposed deletion of current requirements to conduct a functional test prior to each reactor startup is acceptable. Provide discussion that establishes a safety basis for proposed ITS surveillance requirements.
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- A 084 Table 4.1-1A, Functions 18, 19. The CTS requirement to perform response time testing of the automatic trip and interlock logic and reactor trip breakers is not included in the ITS since this time is included in the time recorded for the other required response time tests and this presentation is consistent with the guidance of NUREG-1431. Since this is just a different presentation of the response time testing requirements and these times will continue to be measured with the individual reactor trip response time tests, this is an administrative change.
<< <<Comment is revised following telephone discussions August 8, 2001 with the licensee>>>
Comment: The staff may agree that the changes evaluated can be categorized as NSHD category A but additional justification is required to show that the CTS requirements are unchanged in the proposed ITS format (including definition of response time testing) .
- A 085 Table 4.1-1A, Table 4.1-1B, Table 4.1-1C. To be consistent with the format and content guidance of NUREG-1431, the definition of frequency notations is not included in the ITS. The ITS clearly specifies SR frequencies in the number of hours, days, months or years as appropriate without use of notation; thus this information is unnecessary. Since no substantive changes have been made with this change, this is an administrative change.
- L 086 Table 4.1-1A, Notes 4 and 17. The frequency for this SR has been modified to be consistent with the guidance of NUREG-1431. This change requires performance of the SR every 92 days which is more restrictive than the CTS. It also removes the requirement to perform the SR if the unit is shutdown for 2 days when the SR has not been performed in the last 30 days, which is less restrictive. Since the change involves both more and less restrictive elements, this change is categorized as a less restrictive change. This change is acceptable since the instrumentation usually passes this SR when performed. It is usually obvious if this instrumentation is not functioning properly; then measures are taken to restore it to operable status. Thus performance of the SR each shutdown in excess of two days is unnecessary.
Comment: Based on the above discussion the staff cannot make a determination that the proposed changes are acceptable. CTS Notes 4 and 17 state CTS different requirements. Provide a separate analysis of each CTS change, include a safety basis discussion for proposed surveillance frequency changes.

- M 087 Table 4.1-1A, Note 4. The CTS note which applies to this SR has been modified to be consistent with the guidance of NUREG-1431 as modified by approved TSTF-311, Rev. 0 except that the CTS provision for the reactor to be shutdown for 2 days is included. With this change, the note will continue to require performance of the SR if the reactor is shutdown more than 2 days and if not performed in the previous 31 days. However, now the note requires the SR to be performed prior to exceeding P-9; thus this is a more restrictive change. This change is acceptable since performance of this SR will not cause the plant to be operated in an unsafe manner.
Comment: The proposed ITS discussed above retains a CTS provision for reactor shutdown but this proposal results in a partial adoption of TSTF-311. Provide a design justification or hardship analysis for not adopting the STS times to take the reactor to hot shutdown.
- M 088 Table 4.1-1A, Note 6. This note has been modified to require performance of the SR prior to exceeding 75% RTP after each refueling which is consistent with current plant practice and is proposed in lieu of NUREG-1431 requirement to perform this SR within 24 hours. CTS does not require the SR to be performed within any specific time, thus this is a more restrictive change. This change is acceptable since this power level limit is consistent with current plant practices and performance of this SR prior to 75% power does not cause the plant to be operated in an unsafe manner.
Comment: Based on the above discussion the staff cannot make a determination that all changes evaluated can be categorized as NSHD category M. The addition of Effective Full Power Days to the specified SR frequency is not evaluated. The addition Note 2 to SR 3.3.1.3 is not evaluated. The staff notes that the SR allowance "prior to exceeding 75% RTP" is not evaluated. The addition of this SR allowance is related to JFD PA-168.
- 089 Not used.
- 090 Not used.
- M 091 Table 4.1-1A, Note 5. This note has been modified to require performance of the SR within 12 hours of reaching 15% RTP which is consistent with the guidance of NUREG-1431. CTS does not require the SR to be performed within any specific time; thus this is a more restrictive change. This change is acceptable since this time frame is consistent with current plant practices, and performance of this SR within this specific time does not cause the plant to be operated in an unsafe manner.

- M 092 Table 4.1-1A, Note 8. This note has been modified to require performance of the SR within 24 hours of reaching the stated percentage of RTP which is consistent with the guidance of NUREG-1431. CTS does not require the SR to be performed within any specific time; thus this is a more restrictive change. This change is acceptable since this time frame is consistent with current plant practices, and performance of this SR within this specific time does not cause the plant to be operated in an unsafe manner.
- L 093 Table 4.1-1A, Note 6. This note has been modified to require recalibration if the absolute difference is greater than 3% which is consistent with the guidance of NUREG-1431. CTS requires recalibration if the difference is greater than 2%. Since this change will allow more flexibility in plant operations, this is a less restrictive change. This change is acceptable since CTS value of 2% was based on engineering judgement and a 1% change is a small difference from the nominal power level.
Comment: Based on the above discussion the staff cannot make a determination that the proposed change is acceptable. Provide a design basis justification for changing the recalibration criteria to 3% from 2%.
- A 094 Table 4.1-1A, Note 7. This is a minor editorial change to make the sense of the requirement consistent with the guidance of NUREG-1431. This change does not involve any substantive changes and thus this is an administrative change.
- A 095 Table 4.1-1A, Note 9 and Table 4.1-1B, Note 22. The requirement for Staggered Test Basis (STB) testing has been modified to agree with the guidance of NUREG-1431. The test frequency for these SRs remains unchanged because the definition of STB differs between CTS and ITS such that the result is that each train is tested every other month under both CTS and ITS. Since there is no change in the frequency with this change, this is an administrative change.
- LR 096 Table 4.1-1A, Note 10. The CTS description of how the verification of permissives is performed is relocated to the Bases consistent with the guidance of NUREG-1431. This detail is not necessary in the specifications and thus is relocated. Since less information is provided in the specification, this change is less restrictive.
- 097 Not used.
- 098 Not used.
- 099 Not used.
- 100 Not used.
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- LR 101 Table 4.1-1A, Notes 13 and 14. These CTS notes have been relocated to the Bases. These notes provide details of "what and how" SRs are performed on the undervoltage and shunt trip mechanisms. These notes are not necessary in the specification for the proper performance of these SRs, and consistent with the guidance of NUREG-1431, these notes are relocated to the Bases. Since less information is provided in the specifications, this is a less restrictive change.
- LR 102 Table 4.1-1A, Note 18. CTS SR requirements for the quadrant power tilt monitor have been relocated to the TRM. This change is consistent with the guidance of NUREG-1431 which does not include any SRs for core monitoring equipment. This change is also consistent with approved TSTF-110, which relocated core monitoring equipment from other NUREG-1431 Specifications. Since this change removes equipment from the TS, this is a less restrictive change. This change is acceptable since it will still be under the regulatory controls of 10CFR50.59 in the TRM.
Comment: Based on the above discussion the staff cannot make a determination that the proposed changes are acceptable. Provide additional discussion, including a safety basis, for deleting CTS requirements to perform a QPTR test.
- 103 Not used.
- L 104 Table 4.1-1A, New note. A new note has been included which allows this instrumentation to be tested each refueling (24 months) on a Staggered Test Basis (STB). This change is consistent with the guidance of NUREG-1431. Since this change requires less frequent testing of plant equipment, this is a less restrictive change. This change is acceptable because this instrumentation usually meets the test acceptance criteria when the test is performed.
Comment: Based on the above discussion the staff cannot make a determination that the proposed changes are acceptable. Provide additional discussion, including a safety basis, for deleting CTS requirements to adopt staggered test basis changes.
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- M 105 Table 4.1-1A and Table 4.1-1B, New note. A new note has been included which requires verification that the time constants associated with this instrumentation are adjusted to the prescribed values when the SR is performed. This change is included to be consistent with the guidance of NUREG-1431 (SR 3.3.1.10 and 3.3.2.7) and current plant practices (SR 3.3.1.11 and 3.3.1.12). Since this is a new explicit requirement in the TS this is a more restrictive change. Since this requirement is consistent with current plant practice, it does not introduce any new unsafe operating conditions.
Comment: Based on the above discussion the staff cannot make a determination that the proposed changes represent current plant practices and that the deviations from the STS are acceptable for the Prairie Island 1 & 2 design basis. Provide additional discussion, including a safety basis, for proposing ITS SR 3.3.1.11 and SR 3.3.1.12. (SEE Comment # 3.3.1-09)

Comment: DOC 3.3-105 pertains to CTS Table TS 4.1-1B, Note 27. The CTS markup adds a Note to ITS SR 3.3.2.6 to require verification that time constants are adjusted to prescribed values. This CTS change is not evaluated in DOC M 3.3-105. Provide a justification for proposed CTS changes.

- M 106 CTS Table 4.1-1B, Function 6d. To be consistent with the guidance of NUREG-1431, the Feedwater Isolation Logic is required to be functional in MODE 3 except when the MFRVs and MFRV bypass valves are closed. This change is more restrictive since the logic is required to be operational in more modes. This change is acceptable since having the logic operational in MODE 3 may increase plant safety.

Comment: CTS Table TS.4.1-1B requires Hi-Hi Steam Generator Level, SI, Reactor Trip with 2 of 4 Low Tavg and Automatic Actuation Logic and Actuation Relays instrumentation functions for Feedwater Isolation instrumentation to be operable in MODES 1 and 2. This DOC discusses adding MODE 3 requirements to the Feedwater Isolation Actuation Logic and the following note to MODE 2 and 3: "except when the all MFRVs and MFRV bypass valves are closed and in manual or isolated by a closed non-automatic valve". However, JFD CL-258 deletes MODE 3 requirements for FWI on Steam Generator Level (Function 6.b) because:

"MODE 3 is not included as an applicable MODE since it is not required in CTS. Feedwater isolation is not assumed in any accident analysis for high-high SG level."

Explain the need for actuation logic to be operable in MODE 3 when FWI functions are not proposed to be operable in MODE 3.

- A 107 Table 4.1-1B, Note 25. This note which references CTS Table 4.17-2 has not been included in the ITS. CTS Table 4.17-2 was removed from the CTS by License Amendments 122/115 dated January 24, 1996. Since this change does not involve any substantive changes, this is an administrative change.
- M 108 Table 4.1-1A, Note 16. A new requirement is included which requires the Reactor Trip Bypass Breaker to be tested when it is placed in service. Since this is not an explicit requirement in CTS, this is a more restrictive change. This change is acceptable since it will assure that the breaker functions properly when it is placed in service and thus will ensure that the plant operates safely.
- A 109 CTS Table 4.1-1B, new note 28. To be technically accurate and consistent with the guidance of NUREG-1431, a new note is provided which clarifies that verification of the setpoint is not required by this surveillance. This note is appropriate since this SR applies only to manual switches which do not have any associated setpoints. Thus, this new note does not introduce any substantive change in plant operations or tests. Accordingly this change is an administrative change.
- 110 Not used.
- 111 Not used.
- LR 112 Table 4.1-1C, Function 6. The RHR pump flow function has been relocated to the TRM which is consistent with the guidance of NUREG-1431. The RHR pump is required to be OPERABLE in accordance with LCO 3.5.2 which includes instrumentation. Since this instrumentation is not a primary success path for mitigation of an accident, it is unnecessary to have this instrumentation listed separately in the TS. This instrumentation will continue to be under regulatory controls through 10CFR50.59. Since this instrumentation has been removed from TS controls, this is a less restrictive change.
- L 113 Table 4.1-1C, Function 8. The weekly check of the RWST level instrumentation has been replaced by a monthly check which is consistent with the guidance of NUREG-1431. The monthly functional check of this instrumentation has been deleted which is also consistent with the guidance of NUREG-1431. Changing to monthly channel checks is acceptable since this instrumentation usually is functional during the weekly check and it is in the control room where it is normally observed on a frequent basis even if not required by TS. Deleting the monthly functional test of this instrumentation is acceptable since this is a simple instrumentation loop involving only indication. Thus, the functional test required by CTS is not meaningful and can be deleted to be consistent with NUREG-1431. Since these changes remove plant testing requirements, these are less restrictive changes.

- A 114 Table 4.1-1C, Functions 5, 7, 9 and 12 and Note 33. These Specification requirements were deleted by LAR entitled, "Removal of Boric Acid Storage Tanks from the Safety Injection System," submitted April 17, 2000. Since these changes were justified in that submittal, these are considered administrative changes in this submittal.
- LR 115 Table 4.1-1C, Functions 13, 15, 16, 17, 19, 20, 26, 27, 28, 30, and 31. These instruments have been relocated to the TRM which is by reference part of the USAR. These instruments are not included in NUREG-1431 and thus this change is consistent with its philosophy and guidance. This change is acceptable since these instruments are not a primary success path for mitigation of an accident; therefore it is unnecessary to have these instrument SRs in the TS. These instruments will continue to be under regulatory controls through 10CFR50.59. Since these instruments have been removed from TS controls, this is a less restrictive change.

Comment: Relocated Current Technical Specification. Current TS proposed to be relocated to licensee controlled documents are required to be evaluated for retention in ITS per 50.36(c)(2)(ii). The applicabilities of these items (page 47 of 72, ITS Part C) states the items are directly related to safety limits and limiting condition for operation. Provide a 50.36(c)(2)(ii) analysis to support a R-DOC NSHC classification.

- LR 116 Table 4.1-1C, Function18. The instrumentation shift check and monthly functional test have been relocated to the TRM. This change is consistent with the guidance of NUREG-1431. This change is acceptable since this instrumentation usually passes these SRs when performed. Even though this instrumentation is removed from the TS, it will continue to be under the regulatory controls of 10CFR50.59 since the TRM is part of the USAR. Since these SRs are relocated from the TS, this is a less restrictive change.

<<<<This comment was added following telephone discussions August 8, 2001 with the licensee>>>>

Comment: The Coolant Flow-RTD Bypass Flowmeter functions provides a signal to the OTDT and OPDT trip function. Flowmeter testing required by CTS include, a channel check once per shift, a refueling interval channel calibration and a monthly functional test. The refueling interval calibration is retained in ITS as Note 1 to SR 3.3.1.12. Proposed deletion (by removal to the TRM) of the channel check and functional tests is not justified. Both the OTDT and OPDT functions require a channel check and channel operational test (functional test). Revise the ITS to include a Coolant Flow-RTD Bypass Flowmeter channel check and functional test.

- L 117 Table 4.1-1C, Function 18, Calibration and Note 34. Mode 3 has not been included in the applicability for this SR. This SR is included as a note in SR 3.3.1.12 in support of the OT_ΔT and OP_ΔT functions. Since OT_ΔT and OP_ΔT are only applicable in Modes 1 and 2, this SR has been made applicable in Modes 1 and 2. This change is consistent with the guidance of NUREG-1431. This change is acceptable since the SR is required to be met in the modes where OT_ΔT and OP_ΔT perform a safety function. Since the SR is applicable in fewer modes, this is a less restrictive change.

- LR 118 Table 4.1-1C, Function 29. The CTS Surveillance Requirements for the hydrogen monitors, which are more restrictive than NUREG-1431, have been relocated to the TRM which is by reference part of the USAR. The hydrogen monitors will continue to be included in the Event Monitoring Instrumentation specification and the NUREG-1431 SRs will apply. This change is acceptable since the hydrogen monitors will continue to be required by ITS and will have TS required testing. The current Surveillance Requirements will be under the regulatory controls of 10CFR50.59. Since the current Surveillance Requirements have been removed from TS controls, this is a less restrictive change.

Comment: Provide analysis and documentation to show that proposed deletion of CTS requirements to perform Channel Checks, Channel Functional Tests and Channel Calibrations on the hydrogen monitor instrument loops are not required to ensure operability of this TS required equipment and that replacement of these CTS SRs with proposed ITS surveillances at the stated intervals will not affect safe operation of such equipment.

119 Not used.

120 Not used.

- A 121 Table 4.1-1C, Function 21. A new SR 3.3.3.3 has been included along with a new explanatory note to require a TADOT to be performed on the containment penetration flow path isolation valve position indication instrumentation in lieu of instrumentation calibration. Since this is consistent with current plant practice, this change is a clarification of the understanding of CTS requirements and therefore this is an administrative change. This change is consistent with NUREG-1431 as modified by TSTF-244.

Comment: Provide specific analysis to show that current TS "Channel Calibration" for containment penetration flow path isolation valve position indication is equivalent to ITS defined "TADOT." Also, show that not performing a "Channel Calibration" on this loop and end device represents a consistent surveillance test practice for other similar ITS instrument loops to ensure component operability.

- 121 Not used.
- A 123 Table 4.1-1C, Notes 35, 36 and 37. These notes are not included in the ITS since the functions to which they relate have been relocated or the note has been made inapplicable due to the format of the ITS. Since no substantive changes have been made in technical requirements or plant operations, this is an administrative change.
- 124 Not used.
- L 125 CTS 3.10.C.4. CTS requires verification of the core quadrant power balance daily and after 10% power changes when one excore nuclear channel is inoperable and the power is above 85%. This change will require the core quadrant power balance to be verified every 12 hours under these conditions. This change is more restrictive since the 12 hour Frequency is twice daily. For power changes of 10% or more which occur in less than 12 hours this is a less restrictive change. Therefore this change is considered a less restrictive change. This change is acceptable since: 1) most power changes occur slowly such that the 12 hour Frequency is not a significant extension of the time for verification of the core power quadrant balance; 2) the QPTR changes occur relatively slowly when there are power changes; 3) large quadrant power tilts are likely to be detected with the remaining operable excore nuclear channels; 4) sudden significant quadrant power tilts are typically associated with other indications of abnormality (for example, a dropped rod) that prompt verification of core power tilt; and 5) the probability of an accident is very low during the time between a controlled 10% power change and the 12 hour SR performance Frequency. This change is consistent with the guidance of NUREG-1431.
- A 126 CTS 3.10.C.4. CTS references CTS Specification 3.11. This change references ITS SR 3.2.4.2. Since there is not a substantive technical change, this is an administrative change.

RAI 3.3.1-#1, page 3.3.1-10; STS Mismatch

ITS Condition M

The condition refers to "One Reactor Coolant Pump Breaker Position channel inoperable" The cited ITS Table 3.3.1-1 entry for this function is "Loss of Reactor Coolant Pump (RCP) —RCP Breaker Open." Resolve the mismatch in the final retype of ITS.

RAI 3.3.1-#2, page 3.3.1-12; BSI

ITS Required Action P.1

The proposed action changes STS language "Restore train" to "Restore RTB.." This is an unjustified generic change which could be interpreted to have a different meaning from the intended requirements. Adopt the STS wording.

RAI 3.3.1-#3, page 3.3.1-19; BSI

ITS SR 3.3.1.12 Note 1

<<Comment is withdrawn following telephone discussions August 8, 2001 with the licensee>>

The proposed Note is added without DOC discussion. Provide the safety basis for the proposed SR Note. This is both a change to CTS and STS.

RAI 3.3.3-#1, page 3.3.3-3

Required Action F.1, G.1

Condition B

Provide revised required actions that are consistent with NUREG-1431 language for restoration actions, "Restore required channel(s) to OPERABLE status" and for condition statements, "One or more required CET channel(s) inoperable."

RAI 3.3.5-#1, pages 3.3.5-2 and 3 (Part E), Undocumented change

For Condition B, the Note provides an Applicability of "MODE 1, 2, 3, or 4." There is a mismatch between Condition B required applicable modes and Table 3.3.5-1, which includes Applicabilities when the CPIS is not isolated in MODES 1, 2, 3, or 4. For Condition C, the Note provides an Applicability of "during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment." There is a mismatch between Condition C required applicable modes and Table 3.3.5-1, which includes Applicabilities when the CPIS is not isolated.

Justification for Differences from Improved Standard Technical

Cat.	No.	Justification for Difference
	3.3-	
TA	151	<p>This change incorporates TSTF-135, Rev. 3. Also, Bases 3.3.1 Condition F and G introductory sentences were edited to agree with the change in the Conditions.</p> <p>Comment:</p> <p>TSTF-135 is partially adopted. Deletion of SRNs in 3.3.1 are added to the PI ITS, but the addition of LCO 3.3.9, BDPS are not. Review of operability requirements for Source Range Monitors in MODES 3, 4 and 5 with the RTBs opens 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 PI 1 & 2 design basis is different enough to support deviation from the ISTS in that a separate LCO for MODE 3, 4 and 5 requirements with the reactor trip breakers open can be proposed for ITS that meets the intent of the ISTS.</p>
CL	152	<p>NUREG-1431 Condition D and associated Bases were modified to retain the provisions of the applicable CTS Action Statement. PI needs to have one channel out for low power PHYSICS TESTS and thus Note 2 was included with this Condition. ISTS flexibility in D.1.2 was not included to be consistent with CTS. The Note for ITS D.1.2 only requires SR 3.2.4.2 to be performed when the power is below 85% RTP which is consistent with CTS. NUREG-1431 D.1.2 and D.2.1 which require power reduction and tripping the inoperable channel are not included since these Required Actions are not included in CTS.</p> <p>Comment:</p> <p>JFD CL 152 states: "PI needs to have one channel out for low power PHYSICS TESTs and thus Note 2 was included with this Condition." Show that all CTS operational limits for low power physics tests have been retained in ITS. Revise Note 2 to add a allowed outage time for use of this note. Revise Note 2 to only be applicable to ITS functions 2.b, 3.a and 3.b per CTS Action 2.d.</p> <p>Comment</p> <p>Proposed ITS Action D.1.2 for PRNM requires performing SR 3.2.4.2 when the PRN Flux input to QTPR is inoperable. This change to the CTS is not evaluated in a DOC discussion.</p>

Cat.	No.	Justification for Difference
	3.3-	
PA	153	Minor format changes were made to make the Note format consistent with the guidance of NUREG-1431. Where the Note applies only to one portion of the Required Action, the width was reduced and the Required Action number was moved up to the start of the note. Conversely, where the Note applies to the whole Required Action, the Note width was increased and Required Action number moved below the Note.
TA	154	This change incorporates TSTF-246, Rev. 0.
TA	155	<p>This change incorporates TSTF-169, Rev. 0. The Bases has also been revised accordingly. Bases changes account for PI design. Unique at PI, P-7 and P-8 are both approximately the same power level, approximately 10%, so that a power operating region of >P-7 and <P-8 does not exist.</p> <p>Comment</p> <p>Document the safety basis for including P-7 (approximately 10% power interlock) in STS Action M.2 and N.2. See Comment on CL-158</p>
CL	156	A new Condition L was included which allows two channels per bus to be inoperable for ITS Table 3.3.1-1 Functions 11b and 12. This change retains CTS provisions which allows two channels per bus to be inoperable. Once one channel per bus is tripped, the logic is made up and the other channel on that bus is not needed; thus the CTS allows this condition. Bases 3.3.1 Action L has also been revised to be consistent with the LCO Action.
CL	157	This condition has been modified to retain the CTS requirements to restore an inoperable RCP breaker position channel in 48 hours or reduce power in the next 6 hours if it is not restored. In addition, Bases Action M has been revised to be consistent with the LCO Action.

Cat.	No.	Justification for Difference
	3.3-	
CL	158	<p>The Required Actions for this Condition have been modified to include reducing power below both P-7 and P-8 setpoints. PI has a unique design in that P-7 and P-8 are approximately the same power level. Since this Condition applies to Functions with Notes e and f, it is appropriate to require power reduction below both P-7 and P-8 to exit the MODE of applicability.</p> <p>Comment: - BSI issue - Proposed ITS include changes to CTS actions (shutdown to hot shutdown) and to STS actions (shutdown to less than P-8) by adding the requirement to shutdown to less than P-7 or P-8. The staff does not agree with the justification that the design is unique in that P-7 and P-8 are approximately the same power level. The same logic applies to P-9 which is approximately the same power level as P-7, yet this JFD does not proposed to also add P-9. There is no apparent need to customize this shutdown end-state for the RCP breaker open trip function. (CTS Page 15 of 72)</p>
TA	159	<p>This change incorporates TSTF-286, Revision 2.</p>
PA	160	<p>The Note for SR 3.3.1.4 is modified to require performance "when" the reactor trip bypass breaker is placed in service. This change will allow the reactor trip bypass breaker to be placed in service which verbatim compliance with NUREG-1431 would not allow. The bypass breaker must be closed, placed in service, to perform the SR.</p> <p>Since this SR only applies to the Reactor Trip Breakers (RTB) and the RTB Undervoltage and Shunt Trip Mechanisms, and these Functions do not have setpoints associated with them, a new Note is included which excludes verification of setpoints.</p> <p>Comment</p> <p>The proposed action changes STS language "prior to placing" to "when placing." This is an unjustified generic change which could be interpreted to have a different meaning from the intended requirements. "Adopt the STS wording.</p> <p>Comment</p> <p>Addition of Note 2, "Verification of Setpoints not required" appear to be unnecessary because the Table 3.3.1-1 entry for RTB and RTB UV/Shunt Trip Mechanisms is N/A, thus the exclusion is not needed.</p>

Cat.	No. 3.3-	Justification for Difference
CL	161	To be consistent with CTS requirements, one train of the SI input or RTS automatic trip logic may be bypassed for 8 hours for surveillance testing.
CL	162	CTS provision to allow one RTB to be bypassed for 4 hours for surveillance testing has been included.
CL	163	<p>The PI CTS allows the RTB to be bypassed for work on the diverse trip features with no distinction made between testing or maintenance. Thus this condition is modified by a note which allows 4 hours for maintenance. The 4 hours is consistent with the RTB bypass allowance in Condition P Note 1 (ISTS Condition R).</p> <p>Comment: The STS allows bypassing the RTB for maintenance on the UV or shunt trip mechanism. CTS Action 9 permits bypassing the RTB for performing maintenance and testing to <u>"restore a diverse trip feature to OPERABLE status."</u> Provide a safety basis justification for translating the CTS into the proposed ITS.</p> <p>BSI Issue: Also, provide a justification for the 4 hour AOT proposed for Condition P Note 2. CTS contain no time limits, STS allow 2 hours per WCAP-10271-P-A. Provide a license amendment citation for PI to adopt WCAP-10271.</p>
CL	164	<p>CTS requires quarterly and monthly SRs equivalent to ITS SR 3.3.1.3 and 3.3.1.6. These SRs verify performance of the power range instrumentation and OTDT and OPDT trip functions. To retain the CTS requirements and be consistent in ITS, these SRs have been included in Table 3.3.1-1 Function 7. Also, to be consistent with CTS requirements, SR 3.3.1.6 is performed after reaching 75% RTP. The Bases have also been revised, as appropriate, to be consistent with SR 3.3.1.6.</p> <p>Comment</p> <p>SR 3.3.1.3 and SR 3.3.1.6 do not apply to Power Range NI. Additionally, CTS do not require excore/incore calibration (SR 3.3.1.6) for OTDT and OPDT RTS functions. Explain the JFD writeup. The Note to SR 3.3.1.6 is not required by CTS. Provide a safety basis discussion for the addition of the Note to CTS.</p>

Cat.	No. 3.3-	Justification for Difference
CL	165	<p>This note has not been included since it only applies to the source range instrumentation which is addressed by SR 3.3.1.8. The Bases SR 3.3.1.7 has also been revised to delete reference to the deleted Note.</p> <p>Comment - BSI</p> <p>This proposed change deletes the Note to SR 3.3.1.7 for SRNM channels which permits entry into the specified condition (Mode 3 from Mode 2) for 4 hours to perform the required surveillance to establish function operability. Provide safety basis justification for the proposed deletion, explain how proposed SR 3.3.1.8 COT is equivalent to STS SR 3.3.1.7 for the SRNM.</p>
CL	166	<p>NUREG-1431 requires this SR to be performed when power is reduced below P-10 and P-6. Performance of this SR at these times is not included since CTS does not require this SR to be performed at these times. Since performance of this SR at these times is not included, the changes proposed in TSTF-242, Rev 1 are not included.</p> <p>Comment:</p> <p>The Frequency notation allows a normal shutdown to be completed and the unit removed from the mode of applicability for this surveillance without delay to perform required testing. Provide a discussion of how PI intends to circumvent SR 3.0.1 during plant shutdown without use of the STS note.</p>
CL	167	<p>The PI plant design and CTS has two channels of instrumentation for Turbine Stop Valve Closure. Therefore, Table Function 14a has been revised to show "2" channels.</p>

Cat.	No. 3.3-	Justification for Difference
PA	168	<p data-bbox="431 369 1409 905">Note 2 in NUREG-1431 SR 3.3.1.3 is confusing to the operators and is not consistent with CTS and current plant practices. Thus, Note 2 and the Frequency have been modified. The requirement to perform the SR within 24 hours is not included and, in lieu of the 24 hour time limit, this SR must be performed prior to exceeding 75% RTP. The core is modified during a refueling outage such that the comparison of incore to excore AFD may no longer be valid. This change is consistent with the guidance of Westinghouse Technical Bulletin ESBU-TB-92-14-R1, "Decalibration Effects Of Calorimetric Power Measurements On The NIS High Power Reactor Trip At Power Levels Less Than 70% RTP." This Bulletin identified potential effects of decalibrating the NIS Power Range channels at part power operation. The decalibration can occur due to the increased uncertainty of the secondary side power calorimetric when performed at part power (less than approximately 70% RTP). Thus allowing the plant to perform the calibration prior to reaching 75% RTP is appropriate. These changes will provide a meaningful evaluation at the appropriate time.</p> <p data-bbox="431 907 634 934">Comment - BSI</p> <p data-bbox="431 936 1409 1073">Provide safety basis justification and a proposed generic STS change for the deletions and additions to STS Note 2. The staff notes that SR 3.3.1.3 applies to OPDT and OTDT. It appears some of the justification statements are too limiting.</p> <p data-bbox="431 1075 561 1102">Comment</p> <p data-bbox="431 1104 1154 1140">Provide a DOC for adopting STS wording in SR 3.3.1.3.</p>
CL	169	<p data-bbox="431 1199 1382 1467">The time allowed for reducing power below P-9 has been increased to 12 hours. At PI, P-9 is set at or near the same power level as P-7 (approximately 10%) which is much lower than the setpoint assumed in NUREG-1431 (50%). Therefore, the time allowed to reduce power at PI has been set at the same time allowed in the ITS to reduce power below P-7. This change is also consistent with CTS which does not specify an action which would require entry into 3.0.C (ITS 3.0.3) and could allow nearly 7 hours to get to 10% RTP.</p> <p data-bbox="431 1470 561 1497">Comment</p> <p data-bbox="431 1499 1377 1535">Provide plant operational data to support the proposed Completion Time.</p>
	170	Not used.
PA	171	<p data-bbox="431 1652 1333 1751">Clarification was included with this note to assure that the operators understand that this SR frequency applies when the plant is not in the power producing modes (MODES 1 and 2).</p> <p data-bbox="431 1753 696 1780">Comment - Generic</p> <p data-bbox="431 1782 1360 1852">This proposed change alters the Use and Applications Sections of STS. Provide plant specific justification or a TSTF traveler.</p>

Cat.	No. 3.3-	Justification for Difference
X	172	The SR interval is increased to 24 months to support the proposed PI refueling cycle.
PA	173	At PI this SR also includes verification of time constants; therefore, for completeness and accuracy, Note 2 is included. Comment By definition a calibration should include the adjustable devices in the entire channel. Explain the design basis difference for the proposed change.
	174	Not used.
TA	175	This change incorporates TSTF-311, Rev 0. The specified Frequency has been modified to include CTS provisions which only require performance of the SR when the plant has been shutdown for more than 2 days. Comment SR 3.3.1.15 applies to Turbine Trip. The applicability for this function is above P-9, thus the specified SR Frequency does not need to reiterate this allowance. Also, the STS Note to the SR is deleted but the contents of the Note are moved into the Frequency. This is an unjustified change to the STS. Explain the need. Moreover, the CTS contains other limitations in addition to the 2-day shutdown which are not included in the ITS. Justify the CTS changes. (M-087)
TA	176	This change incorporates TSTF-355 Rev. 0. In accordance with the reviewer's note the "Allowable Values" column is included in the PI ITS and the "Trip Setpoint" column is not included. Likewise, Table 3.3.5-1 includes Allowable Values for the applicable instrumentation. In addition the Bases has been revised, replacing "trip setpoint" or "LSSS" with "Allowable Value" where appropriate, changing "Trip Setpoint" to lower case, and using "actual setting" where appropriate, to improve consistency and minimize confusion of the terms in instances not included in TSTF 355. The term "Nominal Trip Setpoint" is not used or defined in PI CTS or ITS. Therefore the last parts of TSTF-355 Inserts 1, 2, 5 and 8 relating to NTS or to "nominal" values were not incorporated in the ITS Bases. The Allowable Value and (RTS/ESFAS) Setpoint discussions were edited to identify that the safety analysis provides analytical limits, according to analysis assumptions or results, but does not specifically list analytical limits.

Cat.	No.	Justification for Difference
	3.3-	
TA	176	(Continued) Comment: 10 CFR 50.36 requires that LSSS be included in TS. The NUREG-1431 Bases define the RTS Allowable Value to be the LSSS. For Prairie Island Units 1 & 2 the LSSS is required to be in TS. The STS may be adopted with appropriate justification or an alternate proposal may be submitted to the staff for review and approval. The STS Bases discussion of Nominal Trip Setpoint is required because it establishes the relationship to the TS Allowable Value based on the approved setpoint methodology. A safety basis justification is required for adopting STS Allowable Value nomenclature in proposed ITS and this is typically accomplished with references to the staff approved setpoint methodology. Provide LSSS for proposed PI- ITS and appropriate TSTF-355 Bases.
CL	177	The value from Prairie Island's Setpoint Methodology is provided. See Part D, Discussion of Change L3.3-31 for further discussion of this change.
CL	178	The PI ITS definition for RTS RESPONSE TIME clearly defines the time interval from when the monitored parameter exceeds its RTS trip setpoint at the channel sensor output. Thus, by definition, the neutron detectors are excluded from response time testing and an exception note is not required. Including the note may cause confusion since the detectors are already excluded by definition. Comment Provide a TSTF traveler for the proposed generic change.
	179	Not used.
	180	Not used.
CL	181	The PI allowable value from CTS 2.3.A.1b is provided.
CL	182	SR 3.3.1.16 has been included for the power range neutron flux high positive rate. This change retains a CTS requirement.
	183	Not used.

Cat.	No.	Justification for Difference
	3.3-	
CL	184	The PI allowable value from CTS 2.3.A.1.a is provided.
CL	185	The PI allowable value from CTS 2.3.A.1.c is provided.
CL	186	CTS do not require Response Time Testing for pressurizer pressure, RCS low flow, RCP undervoltage, RCP underfrequency and steam generator low-low level since the response time is not credited in the safety analyses for these functions. Thus Response Time Testing is not included for these functions.
	187	Not used.
CL	188	SR 3.3.1.7 and SR 3.3.1.8 as presented in NUREG-1431 have been modified in the PI ITS to be consistent with the testing in CTS and current practice at PI. Thus the appropriate COT SR for this function in MODEs 3, 4 and 5 (as modified) is SR 3.3.1.8. Comment: See Comments on CL3.3-166 and PA3.3-171
CL	189	The P-7 and P-8 interlocks are included as a limiting condition for ITS Table 3.3.1-1 Note f since the RCP trips do not have to be functional until the P-7 or P-8 setpoints are exceeded. Comment CTS require the Reactor Coolant Flow - Low function to be operable in Mode 1. ITS proposes a change to limit the operability requirement to greater than P-7 or P-8. Provide DOC documentation giving a safety basis justification for the less restrictive CTS changes proposed by this JFD. State the safety basis for including the P-8 interlock in the applicability note.
	190	Not used.
CL	191	The actual number of PI pressurizer pressure channels is provided.
CL	192	The PI allowable value from CTS 2.3.A.3.a is provided.
	193	Not used.
	194	Not used.

Cat.	No. 3.3-	Justification for Difference
CL	195	NUREG-1431 Table 3.3.1-1 and Bases for Function 11 has been modified to be consistent with CTS Table 3.5-2A Function 16 and Table 4.1-1A Function 16. The Underfrequency function for Buses 11 and 12 (21 and 22) has been included as function 11b in the ITS (including appropriate specification requirements such as Applicable Modes, Required Channels, Conditions and Surveillance Requirements). This arrangement is required to place the underfrequency function in its proper relation to the loss of RCP trip function. An underfrequency condition does not directly cause a reactor trip but instead it feeds the RCP breaker open trip. Also, P-7 does not directly interlock the underfrequency function.
CL	196	The two loop RCP breaker trip function, NUREG-1431 Table 3.3.1-1, Function 11 b and associated Note i, are not included in the ITS since PI CTS does not have this function. As a result of the PI Design the reference to single loop is deleted. Unique at PI, P-7 and P-8 are approximately the same power level, approximately 10%, such that a single loop RCP trip will always provide a reactor trip before a two loop RCP trip. There is no power operating region that is >P-7 and <P-8.
CL	197	The PI number of required channels specified in CTS is included. The allowable value for underfrequency from CTS 2.3.A.2.h is included in the Allowable Value column.
CL	198	A new Note g was included to clarify that this function does not provide a direct reactor trip, but rather opens the RCP breakers. In accordance with ITS Table 3.3.1-1, Function 11a, the reactor will be tripped when an RCP breaker is open. Comment This appears to be a discussion of the PI design which should be in the Bases for Function 11.b.
	199	Not used.
	200	Not used.

Cat.	No.	Justification for Difference
	3.3-	
CL	201	<p>The RCP undervoltage function name has been revised to be consistent with the CTS function name. This name is more descriptive and accurate than the NUREG-1431 name.</p> <p>Comment - Mismatch</p> <p>The CTS nomenclature for ITS functions 11.b and 12 are changed to delete the reference to the "4kV bus." Provide justification.</p>
CL	202	<p>The number of required channels is provided consistent with the plant design and CTS.</p>
CL	203	<p>The number of required channels is provided consistent with the plant design and CTS. The Allowable Value for steam generator low-low level from CTS 2.3.A.3.b is included.</p>
CL	204	<p>The steam generator low level coincident with steam-feedwater flow mismatch is not included in the PI ITS or Bases since PI does not have this reactor trip.</p>
PA	205	<p>The name for this function has been modified to "Autostop" Oil Pressure to be consistent with PI system name.</p>
CL	206	<p>The PI allowable value from CTS 2.3.A.3.c.2 is provided.</p>
CL	207	<p>SR 3.3.1.10 for instrument calibration is not included since the valve position switch indicates the valve is open or closed and does not require calibration. Likewise an allowable value for this function is not provided consistent with CTS and with Prairie Island's design and licensing bases.</p> <p>Comment</p> <p>CTS 2.3.A.3.c.1 specifies a "closed" position. Provide discussion for not using this description as the ITS AV.</p>
PA	208	<p>A new Note j is included to provide clarification to the operators that these specification requirements only apply to breakers that are OPERABLE and closed.</p> <p>Comment - Generic</p> <p>This proposed generic change requires a TSTF traveler for review by the staff.</p>

Cat.	No. 3.3-	Justification for Difference
	209	Not used.
	210	Not used.
CL	211	The PI allowable values for the reactor trip interlocks from CTS 2.3.B are provided for P-6, intermediate range neutron flux; P-7, power range neutron flux input; and P-10, power range neutron flux.
CL	212	<p>The P-7 function, ITS Table 3.3.1-1, Function 16b, has been modified to be consistent with CTS. This provides additional specification requirements such as additional SRs and Allowable Values for the parts of P-7. PI design pre-dates use of the P-13 designation. Thus PI does not have P-13 per se. Turbine Impulse Pressure is a direct input to P-7. Since P-7 includes process instrumentation inputs it is not limited to a logic only function as described in ISTS. For completeness and consistency with CTS, the NI Power Range inputs are included in P-7.</p> <p>Comment</p> <p>Clarify this justification. The CTS do not contain a P-7 function for the RTS; what is the basis for modifying ITS to be consistent with CTS? The addition of SR 3.3.1.10 to the P-7 function for Turbine Impulse Pressure is not justified. Provide justification. Explain the safety basis justification for ITS proposed P-7 functions 16.b.1 and 16.b.2.</p>
CL	213	NUREG-1431 Function 18f, Turbine Impulse Pressure, P-13, is not included in the PI ITS since this is not included in the PI CTS.
CL	214	<p>The NUREG-1431 equations for $OT_{\Delta T}$ and $OP_{\Delta T}$ have been replaced by the CTS equations from CTS 2.3.A.2.d. This results in changing values for some variables and deleting others. Also, PI design provides the same $f(\Delta I)$ penalty to both $OT_{\Delta T}$ and $OP_{\Delta T}$. The equation constants have NOT been relocated to the COLR in accordance with approved TSTF-339. PI does not currently have approved methodology to determine these values; therefore they have been retained in the ITS.</p> <p>Comment - BSI</p> <p>Proposed CTS changes to OTDT and OPDT equations in the ITS will be reviewed by the Reactor Systems Branch.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	215	<p>The CTS equation equalities have been included in the OT_ΔT and OP_ΔT equations. This means the changes in proposed TSTF-310 have not been incorporated. The negative sign in the f(_ΔI) equation has not been included since this penalty always decreases the setpoint and negative value along with a negative equation would increase the setpoint.</p> <p>Comment - BSI Proposed CTS changes to OTDT and OPDT equations in the ITS will be reviewed by the Reactor Systems Branch.</p>
	216	Not used.
	217	Not used.
	218	Not used.
	219	Not used.
	220	Not used.
CL	221	<p>ITS Condition C is modified to be consistent with CTS Table 3.5-2B Action 20 which allows 8 hours for one train to be bypassed for surveillance testing.</p>
CL	222	<p>CTS allows containment pressure channel inputs to containment spray logic to be tripped when one or more are inoperable. The PI logic is one-out-of-two channels, three-out-of-three sets. ITS Condition D is invoked to allow one channel to be tripped. ITS Condition E has been modified to account for the PI unique logic. CTS allows one channel in each set to be inoperable, whereas PI ITS will allow any two channels to be inoperable. To assure that the containment spray system will not inadvertently actuate on a single spurious signal, the second channel out of service is required to be placed in bypass, rather than tripped.</p> <p>Comment: BSI Issue, see DOC L3.3-058</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	223	<p>NUREG-1431 Condition F applies to Function 4.a., Steam Line Isolation Manual Initiation, Function 6.e., Loss of Offsite Power, Function 6.h., Auxiliary Feedwater Pump Suction Transfer on Suction Pressure Low, and Function 8.a., ESFAS Interlocks Reactor Trip, P-4. Of these, only Function 4.a is in CTS. The other functions are not included in the ITS as discussed in subsequent JFDs and will not be discussed further here. Function 4.a. does not involve any logic functions and therefore is adequately addressed by the Specification 3.7.2 and its SRs and Bases. Therefore, Function 4.a is not included in Table 3.3.2-1. Since none of the Functions which apply NUREG-1431 Condition F are included in ITS, Condition F is not included in the ITS. NUREG-1431 Condition G has been relettered to ITS Condition F.</p> <p>Comment: (see also RAI 3.3.2- Undocumented CTS Changes - #1, page 27 of 72) STS: Condition F CTS: Table TS 3.5-2B Function 5a (MSLI)</p> <p>NUREG Condition F applies to two functions which are part of the PI Unit 1 and 2 plant design; Manual Main Steam Line Isolation and ESFAS Interlock P-4 (Reactor Trip). Neither of these ESFAS functions are proposed for ITS. These ESFAS Functions are required to be in ITS because they meet criterion in 10 CFR 50.36. Revise the amendment to include these functions, their associated conditions, required actions and surveillance requirements.</p>
CL	224	<p>ITS Condition F (NUREG-1431 Condition G) is modified to allow one train to be bypassed for 8 hours for surveillance testing. This change is consistent with CTS Table 3.5-2B Action 28.</p>
CL	225	<p>NUREG-1431 Condition H is not included since it is not used. Condition H is only used when MODE 3 is not applicable for the Feedwater Isolation Function. Since PI requires the Feedwater Isolation Function to be operable in MODE 3, Condition F (NUREG-1431 Condition G) is the appropriate condition and Condition H is not required for any function condition of inoperability. Since NUREG-1431 Conditions F and H have not been included in the ITS, NUREG-1431 Conditions I, J and K have been relettered to G, H and I respectively.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	226	ITS Condition H (NUREG-1431 Condition J) is added to provide for inoperability of the undervoltage channels consistent with CTS Table 3.5-2B Action 28. These changes are necessary due to the change in format which would significantly reduce operational flexibility if these changes were not incorporated.
CL	227	<p>ITS Condition I (NUREG-1431 Condition K) is modified to be consistent with the requirements of CTS Table 3.5-2B Action 30. The note which allows one channel to be bypassed is not applicable to the AFW logic and is not included. Since the AFW logic is unique, NUREG-1431 Condition G does not apply.</p> <p>Comment: ITS: Required Action I.1 - This action applies to an inoperable train of actuation logic or an inoperable channel of "Trip of Both Main Feedwater Pumps" and specifies a requirement to perform remedial actions as given in the AFW Specification (3.7.5). Revise proposed Required Action I.1 to be consistent with STS LCO 3.7.7, Required Action A.1.</p>
	228	Not used.
	229	Not used.
	230	Not used.
CL	231	<p>The NUREG-1431 ESFAS interlocks, Table 3.3.2-1 Function 8, are not included in the PI ITS. The PI design predates the specific identification of these interlocks as "P" numbers; thus, these are not included in the PI CTS. These functions are included with other functions as appropriate.</p> <p>Comment: (Also see CL 3.3-223 comment) Note: CL 3.3-189 discusses RCP pump applicabilities and states that the pump does not have to be operable until the P-7 and P-8 setpoints are reached (ITS Table 3.3.1-1, Note (f)), thus the "P" terminology exist for PI Units 1 and 2. Revise the submittal to adopt ESFAS Interlock functions for all installed interlocks.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	232	The Note in NUREG-1431 SR 3.3.2.3 does not apply to PI. Since the only difference between SR 3.3.2.3 and SR 3.3.2.2 is the Note, SR 3.3.2.3 has not been included in the ITS.
CL	233	PI design does not allow for monthly or quarterly testing of the Master Relays and Slave Relays in a separate test and thus ISTS SR 3.3.2.4, ISTS SR 3.3.2.6, ISTS SR 3.3.6.3 and ISTS SR 3.3.6.5 are not included in the ITS. Relays that can be tested on line are included in SR 3.3.2.2 and SR 3.3.5.2. ESFAS relay logic test circuit design is unique for Westinghouse 2-loop plants of PI vintage. Generally, ESFAS logic consists of input relays, latching relays (master), non-latching relays (slave) and test relays. When placed in test for the ALT, the test relay contacts block energizing of any master or slave relays whose contacts are connected to external equipment actuation circuits, for the entire train. All master and slave relays whose contacts remain within the logic are allowed to energize as each input relay matrix is made up. The relays that are allowed to energize or those blocked is unique to each logic function, based on circuit design. There is a continuity check feature for each master or slave relay coil circuit that is blocked when in test.

Comment:

Discussion in CL 3.3-233 indicates that some master and slave relays are tested. The staff position is to retain the STS master relay test (SR 3.3.2.4) and the slave relay test (SR 3.3.2.6) and annotate the Bases to explain what parts of the instrument channel are tested for each TS required ESFAS function that have a master slave relay design. Alternately, a Note to these SRs could be added which defines which master and slave relays are tested as part of these SRs. The ITS functions affected by this issue are 1.b (Safety Injection), 2.b (Core Spray), 3.b (Containment Isolation), 4.a (Main Steam Line Isolation), and 5.a (Feedwater Isolation).

Comment:

Discussion in CL 3.3-233 indicates that some master and slave relays are tested. The staff position is to retain the STS master relay test (STS SR 3.3.6.3) and the slave relay test (STS SR 3.3.6.5) and annotate the Bases to explain what parts of the instrument channel are tested for each TS required ESFAS function that have a master slave relay design. Alternately, a Note to these SRs could be added which defines which master and slave relays are tested as part of these SRs. This issue affects Containment Ventilation Automatic Actuation Logic and Actuation Relays.

Cat.	No.	Justification for Difference
	3.3-	
CL	234	The only PI function to which this SR would apply is the AFW Undervoltage on Buses 11 and 12. CTS requires performance of the SR on this function each refueling. Furthermore, the calibration SR for this function is also performed each refueling; therefore, setpoint verification is performed at the same time as the TADOT. Since the note is not required, and the frequency would be every refueling (24 months in ITS), this SR is the same as ISTS SR 3.3.2.8. Thus, this SR would be redundant and is not included in the PI ITS.
CL	235	The Note for SR 3.3.2.4 (NUREG-1431 SR 3.3.2.8) is edited to remove specific reference to manual initiation functions. The SR and note are applicable to additional functions. At PI, the MFW pump trip is sensed via switchgear breaker cell switches, which do not have a setpoint. The undervoltage signal is provided by relays and logic that provide other functions within the RTS, thus have other more stringent SR requirements for setpoint verification.
CL	236	A new SR 3.3.2.5 is included in the ITS to perform a TADOT on a 24 month STAGGERED TEST BASIS (STB). This SR is consistent with CTS surveillance requirements for SI manual initiation except that CTS specifies testing each refueling on STB. The ITS Frequency is specified as 24 month STB to accommodate extended refueling cycles. Comment: The Note "Setpoint Verification is not required" is added to SR 3.3.2.5. Provide justification for the addition of this Note.
CL	237	NUREG-1431 SR 3.3.2.10 is not included in the ITS since no Response Time Testing is required in the PI CTS for the Engineered Safety Feature Actuation System Instrumentation.
CL	238	The title of this portion of this instrumentation is revised to "Automatic Actuation Relay Logic" to more accurately reflect the design of the equipment at PI which performs the logic function. This change has been made throughout Specification 3.3.2, 3.3.5 and their Bases. PI has relay logic. The title used in NUREG-1431 applies to the SSPS logic design which PI does not have. Comment: see DOC A 3.3-035

Cat.	No.	Justification for Difference
	3.3-	
X	239	The high steam flow portion of this function has been deleted from CTS in accordance with proposed LAR entitled, "Remove High Steam Flow Signal from Input to MSLI Logic." The Low-Low functional requirements have been moved ahead of the Safety Injection requirements to make this Function consistent with CTS presentation.
	240	Not used.
PA	241	This is a minor title change to be consistent with the CTS terminology. This change will make the ITS easier for the operators to use.
CL	242	The CTS Allowable Value from Table 3.5-1 is provided in the ITS Limiting setpoints column.
	243	Not used.
CL	244	The PI design does not include SI actuation instrumentation for high differential pressure between steam lines, high steam flow in two steam lines coincident with low-low T_{ave} , nor high steam flow in two steam lines coincident with low steam line pressure. Therefore these functions and their associated notes are not included in the ITS.
CL	245	PI does not have a P-11 function; thus this note is revised to be accurate for PI by stating that this function applies when the pressurizer pressure is above 2000 psig.
CL	246	PI has two containment spray manual initiation switches which both start both containment spray trains; thus the Required Channels is modified to support the PI design.
CL	247	PI is a two loop plant; thus the function for non-two loop plants is not included in the ITS.
	248	Not used.
	249	Not used.

Cat.	No.	Justification for Difference
	3.3-	
	250	Not used.
	251	Not used.
CL	252	The PI design does not include a two phase containment isolation system with Phase A and Phase B Isolation. Therefore, the Phase B functions are not included in the ITS and Phase A functions have been renumbered accordingly.
CL	253	The Required Channels for containment high-high pressure and RCS low-low T_{ave} coincident with SI are modified to accurately present the PI design.
CL	254	This note is modified to accurately present PI requirements. Since PI only has two MSIVs, "all" has been replaced with "both". Since the MSIVs will not open against any significant pressure, it is unnecessary to de-activate these valves to assure that they will be closed and perform their safety function.
CL	255	The PI design does not include steam line isolation actuation instrumentation for steam line pressure, high steam flow in two steam lines coincident with low-low T_{ave} , nor high steam flow in two steam lines coincident with low steam line pressure. Therefore these functions and supporting notes are not included in the ITS. Approved TSTF-328 is NOT incorporated since it applies only to these functions.
CL	256	A new footnote, Note d, is included in ITS Table 3.3.2-1 to be consistent with CTS requirements. These steam line isolation actuation functions are only applicable when RCS T_{ave} is above 520EF.
CL	257	PI CTS do not include the turbine trips as an ESFAS function; thus, these are not included in the ITS.

Cat.	No. 3.3-	Justification for Difference
CL	258	MODE 3 is not included as an applicable MODE since it is not required in CTS. Feedwater isolation is not assumed in any accident analysis for high-high SG level. Comment: Feedwater Isolation on high high steam generator water level is retained in ITS. Provide additional discussion to clarify the statement in this DOC that feedwater isolation is not assumed in any accident analysis for high-high SG level.
	259	Not used.
	260	Not used.
X	261	To make the ITS complete and conform to the guidance of NUREG-1431, an allowable value for the high-high steam generator level function is provided that is not provided in the CTS. Comment: BSI Issue - Staff review of the proposed high high steam generator water level setpoint is required.
CL	262	The PI design does not include a Solid State Protection System; thus this function is not included in the ITS.
CL	263	Loss of offsite power is not an AFW actuation at PI; thus, this function is not included in the ITS.
CL	264	The CTS number of required Channels is provided.

Cat.	No.	Justification for Difference
	3.3-	
CL	265	<p>CTS do not include calibration or allowable value requirements for trip of both main feedwater pumps since this actuation is from cell switches that actuate when the switchgear breakers are open or closed. Thus, ITS does not include surveillance requirements or an allowable value.</p> <p>Comment: For the trip of both main feedwater pumps function this JFD states “the ITS does not include surveillance requirements or an allowable value,” yet SR 3.3.2.4 applies to the trip of both main feedwater pumps function. Explain the mismatch with proposed ITS. Identify any adjustable devices/components that are in the trip of both main feedwater pump channels that are required to be operable for the function to perform its safety function. Recommend appropriate TS surveillance requirements to periodically test all adjustable devices.</p>
CL	266	<p>The PI AFW design does not include an automatic transfer on pump low suction pressure; thus this instrumentation function is not included in the ITS.</p>
CL	267	<p>The PI plant design does not include an automatic switch over to containment sump; thus this instrumentation function is not included in the ITS.</p>
	268	<p>Not used.</p>
	269	<p>Not used.</p>
	270	<p>Not used.</p>
CL	271	<p>This function only applies to the turbine driven pump; therefore a new note, Table 3.3.2-1, Note f, is included to indicate the function applicability.</p>

Cat.	No.	Justification for Difference
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CL	272	The AFW actuation on trip of both main feedwater pumps is bypassed during plant shutdown and startup to allow proper operation of the AFW system and the main feedwater pumps. A new note, Table 3.3.2-1 Note g, is included to retain this operational flexibility which is in the CTS.
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Comment:
(also see DOC A 3.3-48)

Note (g) is added to the trip of both main feedwater pumps function for AFW actuation. The CTS permits the auto start feature of the Turbine and Motor Driven AFW pumps for this function to be bypassed during startup and shutdown when the main feedwater pumps are not required to be operable to supply feedwater to the Steam Generators. This CTS note is greatly simplified through the deletion of details regarding the specific feature that can be bypassed and the conditions for which the bypass is allowed. The ITS appears to permit indefinite bypass in MODE 2, as such the changes are unjustified and therefore unacceptable. Provide a revised note for ITS that does not change current TS allowances and which is constructed to fit the format of ITS.

CL	273	Table 3.3.2-1 Note e is modified to be consistent with the PI plant design and ITS LCO 3.7.3. Once all the MFRVs and bypass valves are closed and in manual or isolated by a closed non-automatic valve, the isolation function has been met and further functioning of the system instrumentation is not required.
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Comment:
CL 3.3-273 changes NUREG-1431 Applicability Note (j) without stating the basis for the deviation. Provide additional information to justify changes to NUREG-1431 Note (j) as Category "CL".

274-280	Not used.
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CL	281	The CTS terminology for these plant components is "Event Monitoring". To facilitate operator use of the ITS, the CTS terminology is retained in the ITS. This change has been made in the title, LCO and throughout the Specification and Bases.
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Cat.	No.	Justification for Difference
	3.3-	
CL	282	The Mode of Applicability for this specification and Bases have been modified to be consistent with CTS. License Amendments 121/114, issued November 9, 1995, changed the CTS statement of applicability to MODES 1 and 2 in accordance with the provisions of the previous TS and the arguments provided in the supporting LAR.
CL	283	<p>New Actions Note 3, Condition A Note, Condition B, Condition F, Condition G and miscellaneous changes in ITS Conditions C, D, and H are included to implement the CTS requirements for CETS as required by License Amendments 112/105, issued September 7, 1994. Accordingly ITS Table 3.3.3-1 has been revised to not include separate functions for each CET quadrant. In addition, the associated Bases sections have been revised to be consistent with the Specification.</p> <p>Comment: The allowance contained in this proposed change to NUREG-1431 already exists as LCO 3.0.1, which requires the LCO to be met during the MODES or other specified Conditions in the applicability. Revise the ITS by deleting ITS ACTIONS Note #3.</p>
CL	284	<p>The guidance for submitting a report to the NRC is included in this specification, 3.3.3, which is consistent with CTS requirements. This format facilitates operator use of the ITS. Bases 3.3.3 Actions C.1 and J.1 have also been revised to be consistent with the subject change. Since reference to Chapter 5 is not included, approved TSTF-37, Revision 2 is NOT applicable and is not included.</p> <p>Comment: The proposed change to STS is a generic reformatting of NUREG-1431. Revise the ITS to adopt the STS PAM required actions to immediately initiate actions in accordance with Chapter 5 PAM Reporting requirements. Alternatively, use of this format for PI-ITS requires an NEI approved TSTF or provide documentation to show that adopting the STS PAM reporting requirements is burdensome, does not maintain safety, or decreases efficiency or effectiveness of plant operations. TSTF-37, Rev. 2 is not applicable to this discussion because the Administrative Control TS PAM reporting requirement were only <u>renumbered</u> by TSTF-37.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	285	The shutdown requirements for ITS Condition I have been modified to require shutdown to MODE 3 to be consistent with CTS as required by License Amendments 121/114, issued November 9, 1995. Bases have been modified to be consistent with the LCO.
	286	Not used.
PA	287	The Surveillance Requirements Note requires SR 3.3.3.1 and 3.3.3.2 to apply to all EM (PAM) functions. However, these SRs are not applicable to the Containment Isolation Valve Position instrumentation. NUREG-1431 which applies to the Westinghouse plants defines a separate SR, the TADOT, for this type of equipment. Thus, the Surveillance Requirements Note has been modified and SR 3.3.3.3 has been included to require performance of a TADOT on the Containment Isolation Valve Position instrumentation. This change is consistent with proposed TSTF-244, Rev 0. Comment: See DOC A3.3-121 comment for addition of SR 3.3.3.3. Revise SURVEILLANCE REQUIREMENTS, Note by replacing "Item" with "Function" to establish consistent use of Table 3.3.3-1 column header designations.
	288	Not used.
	289	Not used.
	290	Not used.
	291	Not used.
CL	292	To be consistent with CTS and the operator's understanding of the equipment which is post-accident qualified, the term "Logarithmic Scale" is included.
CL	293	The term "per loop" is not applicable to the PI design and therefore is not included in the PI ITS. PI has two wide range hot leg channels and two wide range cold leg channels total, not two channels per loop.

Cat.	No.	Justification for Difference
	3.3-	
TA	294	This change incorporates TSTF-295, Rev. 0.
CL	295	The term "Automatic" is included to be consistent with CTS requirements as approved by License Amendments 121/114, issued November 9, 1995.
CL	296	To be consistent with CTS requirements as approved in License Amendments 121/114, issued November 9, 1995, the Refueling Water Storage Tank Level is included in the ITS and AFW Flow is not included in the ITS. In addition, the Bases have been revised to be consistent with the LCO.
PA	297	Reviewer's Note is not needed and is not included.
	298-310	Not used.
PA	311	The title for this specification and Bases have been changed to "4 kV Safeguards Bus Voltage Instrumentation" which is more meaningful for PI. The voltage relaying that provides DG start measures the voltage at the 4 kV Safeguards Buses. This relaying provides undervoltage (UV) and degraded voltage (DV) functions, thus are not limited to loss of offsite power. These functions provide offsite source transfer in addition to DG start. Thus, this instrumentation is not focused solely on DG start.

Cat.	No.	Justification for Difference
	3.3-	
X	312	<p>The automatic load sequencer function has been included in the ITS. This function is not anywhere in the PI CTS and is not in this specification in NUREG-1431. However, the load sequencers are more appropriate in this specification than they are in 3.8.1 since they are digital logic associated with maintaining the 4 kV safeguards buses operable. Due to the addition of the load sequencers, an introductory clause has been included in the LCO to make it read correctly.</p> <p>The addition of the load sequencers results in changes in NUREG-1431 Condition C and the addition of two new conditions. These changes make the specification correct for the PI logic for this instrumentation and are consistent with current plant practice when a load sequencer is out of service. In addition, the Bases have been revised to be consistent with the LCO.</p> <p>Comment: Automatic load sequencer function is included in NUREG-1431 LCO 3.8.1.C. Revise the ITS to adopt the NUREG format and content for load sequencer operability requirements.</p>
CL	313	<p>The bracketed number of channels has been replaced by the PI specific number of channels. The NUREG-1431 loss of voltage function has been replaced with the PI undervoltage function.</p> <p>Comment: CTS shows total required channels to be 4 per Bus. Revise the ITS to retain CTS requirements for 4 required channels per Bus of loss of voltage instrumentation and 4 required channels per Bus of undervoltage instrumentation in the LCO.</p>
	314	<p>Not used.</p>
CL	315	<p>Required Action A.1 and associated Bases is modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change is consistent with CTS Table 3.5-2B, Action 31.</p> <p>Comment: Revise ITS to adopt NUREG-1431 Condition A, One or more Functions with one channel per bus inoperable.” The one or more language allows separate Condition A clocks to be started for each bus with an inoperable channel. .</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	316	<p>This condition is not included since the required action is not appropriate for this condition at PI. The Bases has also been revised to be consistent with the LCO.</p> <p>Comment: Revise ITS to include NUREG-1431 Condition B modified to be consistent with CTS Action 32 for two inoperable channels per bus.</p>
CL	317	<p>ITS Required Action B.1 and associated Bases have been modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change implements CTS Table 3.5-2B, Action 33 except that the actions more appropriately enter the Conditions for the load sequencer, now that they are included in the TS, than for the diesel generator.</p> <p>Comment: ITS Conditon B does not model CTS requirements or NUREG-1431 requirements for Function a or b with two inoperable channels per bus or for requirements for one inoperable channel per bus not met. Revise ITS to incorporate CTS Action 33 for the number of inoperable channels 3 or more less than total channel requirements.</p>
CL	318	<p>NUREG-1431, Rev. 1, Bases 3.3.5, LCO Section has been revised deleting the following, "During the loss of offsite power the DG powers the motor driven auxiliary feedwater pumps. Failure of these pumps to start would leave only one turbine driven pump, as well as an increased potential for a loss of decay heat removal through the secondary system." This statement has been deleted since it does not reflect PI design.</p>
CL	319	<p>NUREG-1431, Rev. 1, LCO 3.3.4, Applicable Safety Analysis has been revised by adding the specific wording "small break" loss of coolant accident (LOCA). This is a clarification based on the PI safety analysis. At PI, the DG is loaded on the loss of offsite power event during a small break LOCA.</p>
PA	320	<p>NUREG-1431, Rev. 1, LCO 3.3.4, Background Section has been revised by adding a discussion and specific details about the PI design and relationship between the DGs and the load sequencer. This additional information is necessary to assist operators in understanding how specific load rejection and sequencing is performed, as well as the effects of an inoperable load sequencer, as a support system, to its respective DG.</p>

Cat.	No. 3.3-	Justification for Difference
CL	321	Bracketed NUREG-1431 SR 3.3.5.1 is not included in the ITS since PI does not have any comparable CTS requirement. The associated Bases has also been deleted to be consistent with the SR.
CL	322	<p>ITS SR 3.3.4.1 and associated Bases have been modified to a COT to be consistent with CTS requirements for this instrumentation.</p> <p>Comment: Explain the mismatch between this JFD and the proposed ITS SRs. The Actuation Logic Test (ALT), SR 3.3.4.2, is not in ITS. Include detailed discussion to justify that the CTS “Channel Functional Test” is equivalent to a COT and not the NUREG-1431 TADOT.</p>
CL	323	<p>ITS SR 3.3.4.2 is modified to include the appropriate terminology and Allowable Values for the PI instrumentation. These values are taken from CTS Table 3.5-1 except that the degraded voltage time delays have been modified based on test experience since these were first included in the CTS.</p> <p>Comment & Beyond Scope Issue: Explain the basis for the ITS time delay nomenclature. Relate the discussion to the FSAR accident analysis. CTS nominal percent bus voltage becomes ITS Allowable Value bus voltage. This change is a beyond scope review item for the staff.</p>
TA	324	This change incorporates TSTF-365. The traveler has been modified to be consistent with the PI Specification title and the PI system design.
	325-330	Not used.
CL	331	<p>The system which performs the functions in this specification is the Containment Ventilation Isolation system; thus this change has been made in the title and throughout the specification and Bases. The system that this containment isolation ventilation isolation system isolates is the Containment Inservice Purge System; thus, containment inservice purge is referenced in Required Action B.1, C.1 and C.2. The Bases is further edited to clarify how the isolation function occurs.</p>

Cat.	No. 3.3-	Justification for Difference
TA	332	<p>This change incorporates TSTF-161, Rev. 1 in that the Applicable Modes or Other Specified Conditions are specified in the Table. However, for PI the Containment Ventilation Isolation Instrumentation is not required to be operable when the Containment Inservice Purge System is blind flanged. Thus, the Manual Containment Isolation, Safety Injection and Manual Containment Spray Function input to Containment Ventilation Isolation is not required when the Containment Inservice Purge System is blind flanged. Therefore the "all" has been removed from the note referencing to LCO 3.3.2 and the appropriate Applicable Modes or Other Specified Conditions are specified in the Table. Approved TSTF-52, Rev. 2 has NOT been incorporated, since plant evaluations and commitments require the Containment Ventilation Isolation Instrumentation to be operable during CORE ALTERATIONS.</p> <p>Comment: Explain the meaning of TSTF-52, Rev. 2 as applied to the proposed change to STS.</p>
CL	333	<p>"Channel" has been changed to "train" since the PI design includes two trains of instrumentation. The Condition A Completion Time of 4 hours is appropriate since the other train remains operable, the system can be manually actuated and there will be heightened awareness of containment conditions any time this system is in operation due to its infrequent use, and there is a low probability of an accident during this time. For clarity, an exception is made in Conditions B and C to assure that operators do not enter both Conditions A and either Condition B or C when one train is inoperable. Also "or more" is deleted since there are only two radiation monitoring trains. Clarification of the channel to train relationship is provided in the Bases.</p> <p>Comment: Revise the ITS to adopt NUREG-1431 Condition A and Required Action A.1; Condition B and Required Action B.1; Condition C and Required Actions C.1 and C.2, and Table 3.3.5-1, High Radiation in Exhaust required channels or provide a design basis justification for deviating from the NUREG format and content. The staff notes that retaining the CTS channel designation should not prove to be a hardship because Generic Letter 91-18 should be used to interpret the affect that inoperable supporting equipment has on TS required channels.</p>
	334	Not used.

Cat.	No.	Justification for Difference
	3.3-	
CL	335	The surveillance frequency for ITS SR 3.3.5.3 and associated Bases have been increased to 31 days to be consistent with CTS Table 4.1-1B Function 4e.
	336	Not used.
CL	337	The name of this function is modified to agree with the PI design. Since the relays are the actuation logic, the name is "automatic actuation relay logic". Comment: See DOC A3.3-035.
	338	Not used.
	339	Not used.
	340	Not used.
CL	341	The Containment Radiation function has been renamed and reformatted to be consistent with CTS except that the channel check will be more frequent than CTS. The individual types of radiation monitors are not included since these are part of the radiation monitoring trains. Since the Allowable Value is lengthy and complex, it is presented as a footnote to the Table. Comment: New BSI The CTS trip setpoint becomes the ITS Allowable Value. Provide safety basis discussion to document the CTS changes proposed for ITS.
CL	342	"Manual" has been added to the title of this function to be consistent with the CTS function title.
CL	343	New functions, Table 3.3.5-1 Function 5, Safety Injection, and Function 6, Manual Containment Spray, are included to be consistent with the plant design and CTS requirements. Comment: LCO 3.3.5 Applicable Modes mismatch with the Applicable Modes for the ESFAS Functions referenced in ITS Table 3.3.2-1. Reconcile these differences.

Cat.	No. 3.3-	Justification for Difference
CL	344	<p>New notes, Note a and Note b, are included in ITS Table 3.3.5-1 and modify the modes of applicability to agree with CTS requirements. This isolation function is only required to be operable when containment integrity is required or during movement of irradiated fuel assemblies within containment and the Containment Inservice Purge System is not isolated with blind flanges.</p> <p>Comment: Revise the proposed ITS, as applicable, to require Containment Ventilation Isolation Instrumentation to be operable when the Containment Inservice Purge System “is not isolated with blind flanges.”</p>
PA	345-34 9	Not used.
PA	350	<p>NUREG 1431 Bases 3.3.1 Background Section states "...DNBR shall be maintained above the SL value to prevent DNB". The DNBR limits are fuel design acceptance limits used in developing the safety analysis. The SL's are prescribed in the NUREG and ITS Section 2. Satisfying the SL's ensures the fuel design DNBR limit is not exceeded. The SL value statement is deleted to avoid confusion with the terminology. This is considered an editorial change.</p>
	351	Not used.
CL	352	<p>NUREG-1431 Specification 3.3.7, Control Room Emergency Filtration System Actuation Instrumentation, is not included in the PI ITS. The PI control ventilation system does not have an instrumentation system with concomitant logic that fills this function; thus this specification is unnecessary and would not serve a useful purpose. Since this specification is not included, the applicable portions of approved travelers TSTF-161 and 205 are not incorporated.</p> <p>Comment: Show that PI analysis assumptions for operation of control ventilation system does not rely on manual or any installed instrumentation system to perform a safety function.</p>

Cat.	No. 3.3-	Justification for Difference
CL	353	<p>NUREG-1431 Specification 3.3.4 and associated Bases are not included in the PI ITS. The PI CTS do not contain any requirements for the remote shutdown system. PI uses local stations throughout the plant for safe shutdown outside the control room. The safe shutdown systems at PI are designed to meet AEC draft GDC 11 requirements and have been inspected by the NRC in Fire Protection Program inspections. As a result of this deletion, approved travelers TSTF-19, TSTF-205, and TSTF-266 have not been incorporated.</p> <p>Comment: Provide analysis and discussion to show that AEC draft GDC 11 shutdown system components used at local stations throughout the plant for safe shutdown outside the control room do not meet 10 CFR 50.36, Criterion 3 and therefore are not required to be included in ITS.</p>
CL	354	<p>NUREG-1431 Specification 3.3.8, Fuel Building Air Cleanup System Actuation Instrumentation, is not included in the PI ITS. The PI spent fuel pool special ventilation system does not have an instrumentation system with concomitant logic that fills this function; thus this specification is unnecessary and would not serve a useful purpose. Since this specification is not included, the applicable portions of approved traveler TSTF-205 are not incorporated.</p> <p>Comment: Show that PI analysis assumptions for operation of a Fuel Building Air Cleanup System does not rely on manual or any installed instrumentation system to perform a safety function.</p>
CL	355	<p>NUREG-1431 Specification 3.3.9, Boron Dilution Protection System Actuation Instrumentation, is not included in the PI ITS. PI does not have an automatic system which performs this function; thus this specification is unnecessary. Since this specification is not included, the applicable portions of approved travelers TSTF-135 and 205 are not incorporated.</p> <p>Comment: Show that PI analysis assumptions for operation of a Boron Dilution Protection System does not rely on manual or any installed instrumentation system to perform a safety function.</p>

Cat.	No.	Justification for Difference
	3.3-	
PA	356	During the development of ITS certain wording preferences, English conventions, reformatting, renumbering, providing additional descriptive information as related to Prairie Island (PI), or editorial rewording consistent with plant specific nomenclature, system names, design, or current licensing basis were adopted. This includes using "both" or "either" in reference to the number of loops, etc., since PI is a two loop plant. Bases for LCO 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5 have been revised to add specific details from the CTS, design manuals, and P&IDs regarding instruments, setpoints, number of channels, and surveillance details. As a result, the Technical Specifications (TS) should be more readily readable by, and therefore understandable to, plant operators and other users. During this process, no technical changes (either actual or interpretational) were made to the TS unless they were identified and justified.
PA	357	PI was designed and built prior to issuance of the GDC contained in 10CFR50, Appendix A. However, the draft GDCs issued by the Atomic Energy Commission (AEC) in 1967 were utilized in the design of PI. PI Current Licensing Basis (CLB) commits to AEC GDC 14 and AEC GDC 15. The significance of this is that GDC 14 pertains to transients which involve the RTS Instrumentation, whereas GDC 15 pertains to accidents which involve ESF Systems. Therefore, an introductory paragraph has been added to the Bases Background, Section 3.3.1 and 3.3.2 to clarify this point. This is considered to be an editorial change consistent with the PI CLB.
PA	358	NUREG-1431 Bases 3.3.1, Background Section states in part, "... and assures that offsite dose will be within the 10CFR50 and" The reference to 10CFR50 has been deleted since it does not state specific offsite dose values. Offsite dose criteria are contained in 10CFR100. This change is considered to be administrative and does not change any technical content.

Cat.	No.	Justification for Difference
	3.3-	
CL	359	<p>NUREG-1431 Bases 3.3.1, 3.3.2, and 3.3.6, refer to Solid State Protection System (SSPS). PI uses relay logic systems rather than an SSPS. The Bases have been revised to replace the SSPS terminology and phrases with reactor protection relay logic and engineered safety features (ESF) relay logic respectively. The RTS and ESFAS terminology is applicable to PI and is consistent with Current Licensing Basis. This change has been made throughout the entire 3.3 Section.</p> <p>The Bases is also revised to eliminate SSPS specific design features discussion; e.g. "Channel separation is maintained up to and through input bays", that is not applicable to PI. For clarity, reference is made to the USAR, which specifically describes channel separation consistent with PI terminology.</p>
PA	360	<p>NUREG-1431 1431 Bases 3.3.1 and 3.3.2, Background Sections, describe the instrumentation using terminology that is unfamiliar to the PI staff and may conflict with the USAR. Phrases such as "...four distinct but interconnected modules...", "...process algorithm actuation...", and "...process control equipment..." are not used at PI in association with RTS and ESFAS instrumentation and could have meaning unintended for the PI design. For example, the latter term would be considered to be descriptive of equipment used in non-safety related control applications. That terminology has been replaced with terminology applicable to PI. This is considered to be an administrative change since no technical or testing changes are made as a result of this change.</p>
PA	361	<p>NUREG-1431 Bases 3.3.1, Background Section states, "... if a parameter is used for input to the SSPS (protection logic) and a control function, four channels with a two-out-of-four logic are sufficient to provide the required reliability and redundancy." The phrase "four channels with a two-out-of-four logic are sufficient to provide the required reliability and redundancy" is being relocated within the same paragraph. This statement is not entirely accurate nor consistent with PI design as currently stated in the subject paragraph. PI design features that preclude protection and control interaction issues are not limited to only a two-out-of-four logic. This statement is more accurately used, and relocated within the same paragraph of the same Bases Section. This is considered to be an administrative change.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	362	<p>NUREG-1431 Bases 3.3.1, Background Section is being revised by deleting the following paragraph, "Two logic channels are required to ensure no single random failure of a logic channel will disable the RTS. The logic ... logic system's designed reliability." This paragraph is not consistent with PI design. This is more applicable to the SSPS plants and not the relay logic plants such as PI.</p>
PA	363	<p>NUREG-1431 Bases 3.3.1, Background Section states that, "... the second train will provide reactor trip and/or ESF actuation for the unit." This statement is being revised to delete the following, "and/or ESF actuation" from Bases Section 3.3.1.</p> <p>In addition, the following statement is also being deleted from this paragraph, "... reactor trip or send actuation signals via master and slave relays to those components whose aggregate Function best serves to alleviate the condition and restore the unit to a safe condition."</p> <p>NUREG-1431 describes SSPS, which is common to RTS and ESFAS logic and provides both RTS and ESFAS functions. PI uses relay logic. With relay logic, the reactor protection logic and ESF logic are separate entities with separate logic matrices. References to the ESF actuation are contained and discussed in Section 3.3.2. These changes are considered to be editorial since they do not change any technical content or operational processes.</p>
CL	364	<p>NUREG-1431 Bases 3.3.1 and 3.3.2, Background Section states, "... built in testing device that can automatically test the" This is being revised to state, "built in test features that allow testing of the" The term being deleted is "automatically". PI design does not have this automatic feature; therefore, the sentence has been revised to comply with the PI design.</p> <p>In addition, Bases SR 3.3.1.5 and SR 3.3.2.2 have been revised by deleting any reference to using a semiautomatic tester for the ACTUATION LOGIC TEST. PI does not have nor use an semiautomatic tester. The additional changes made to this sentence provide for the as designed test circuitry limitations in different MODES.</p>

Cat.	No.	Justification for Difference
	3.3-	
PA	365	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 1, Manual Reactor Trip has been revised by deleting the following, "... neither the shutdown rods nor the control rods are permitted to be withdrawn and" This information is not needed and considered to be redundant since the reactor is in MODE 6; therefore, all rods are required to be inserted. If any of the rods were withdrawn, the reactor would not be in MODE 6.
CL	366	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 2, states, " The NIS power range detectors ... and the Steam Generator (SG) Water Level Control System." This sentence has been revised by deleting the following, "and the Steam Generator (SG) Water Level Control System." PI design does not provide NIS power range detectors input to the SG level control system. Therefore, this statement is deleted. This is a change to the NUREG based on plant design.
PA	367	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 3, 4, and 5 refer to various "accidents". As described in the PI USAR and appropriate GDCs, the RTS functions are credited for suppressing transients, AOO's or conditions and the ESFAS functions are credited for mitigating accidents. In order for consistency with current plant terminology, all references to "accidents" in the subject Sections are changed to "events". This is considered to be an administrative and editorial change.
CL	368	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 5 has been revised by deleting the following sentences, "These inputs are provided to the BDPS. The requirements for the NIS source range detectors in MODE 6 are addressed in LCO 3.9.3, "Nuclear Instrumentation." PI does not have a BDPS and therefore this statement is not applicable based on current plant design.

Cat.	No.	Justification for Difference
	3.3-	
PA	369	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 6 states, "The LCO requires all four channels ... for two and four loop units (the LCO requires all three channels on the Overtemperature ΔT trip Function to be OPERABLE for three loop units)." The statement, "for two and four loop units (the LCO requires all three channels on the ΔT trip Function to be OPERABLE for three loop units)" is being deleted. PI is a two loop plant; therefore, references to three and four loop unit requirements is not needed. Therefore this deletion is only editorial in nature.
CL	370	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 8 has been revised to reflect PI design which is three channels for Pressurizer Pressure - High function. Per PI design, there is insufficient heat source to cause the need for protection by this function due to pressure control system failure and there is sufficient independent relief capacity. Thus three channels are sufficient to provide the requisite protection.
CL	371	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 6 and 7 have been revised by deleting reference to the ΔT functions limiting each other's range of protection. This cross limiting is not a purpose that is stated in any PI CLB documentation.
CL	372	NUREG-1431 Bases 3.3.1 and 3.3.2 Background statements regarding the source of setpoints is deleted. PI setpoints are not contained in USAR Section 7, or USAR Section 6. Setpoints are based on the limits established by the values assumed in the safety analysis, Section 14. Setpoints are defined in other controlled plant documentation.
CL	373	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 10 has been revised by adding sentences regarding the relationship of the low flow trips and permissives P-7 and P-8 and the resultant range of protection. These sentences are added to provide clarity and additional information about how the plant operates. This change is consistent with the PI CLB and TSTF-169 Rev 1.

Cat.	No.	Justification for Difference
	3.3-	
CL	374	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 11.a, "...unit SLs..." is replaced with "...the DNBR limit..." in the second paragraph, to agree with the first paragraph. The second paragraph is inaccurate; the SL curves do not identify a flow limit.
PA	375	NUREG-1431 Bases 3.3.1 uses "detectors" when describing NIS limitations and functions provided. This is replaced with "channels", where appropriate, to improve technical accuracy when presenting the source of the limitations and functions.
PA	376	NUREG-1431 Bases 3.3.1 includes approximate power levels when describing interlocks (permissives). Setpoints, in terms of Allowable Values, are specified in the Table 3.3.1-1. To avoid possible disagreement between the approximations and the specified values, the approximation statements are not included in the ITS bases. This does not change the specification; thus it is considered an editorial change.
CL	377	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 14 has been revised deleting the discussion of control system interaction and including the following sentence, " Median signal selection ensures that the failure of a single channel will not result in a low level which may require the protection function actuation."</p> <p>NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability Section 5b and 6b have been revised by adding, "Median signal selection is used in the Feedwater Control System." and noting three channels per SG.</p> <p>These changes are necessary to represent the PI specific design approach, that satisfies IEEE-279 requirements, for the inputs to the main feedwater control system.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	378	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 14, Steam Generator Water Level - Low Low, has been revised by deleting the following, "...the MFW System is not in operation and" At PI, it is possible that portions of the MFW system could be in operation in lower MODES as part of post-maintenance or testing operations during shutdown. The ISTS sentence could be interpreted as prohibiting such operation. As noted in other statements in these paragraphs, if the reactor is not critical or not in operation, AFW provides the requisite decay heat removal function. This change is consistent with PI current licensing basis and design.</p>
PA	379	<p>NUREG-1431, Bases 3.3.1, states "Below the P-7 setpoint, no conceivable power distributions can occur that would cause DNB concerns." The potential for approaching DNB is always a concern to the PI Operations staff. Also, "no conceivable" is vague and subject to interpretation. The statement is edited to clarify the relationship of the trip functions that are blocked by P-7 to the safety analysis criteria.</p>
CL	380	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 18 has been revised by adding the following discussion, "Each interlock Function consists of the following circuitry:</p> <p>The bistables that provide the applicable process parameter input,</p> <p>Logic input relays and contact matrix, and</p> <p>Permissive (P) relays that provide the interlock to the appropriate trip logic."</p> <p>This information is provided to ensure clarity of the scope of the permissive circuitry, including scope of the input circuitry and relay logic. The addition of this information is consistent with the PI design. This information is considered editorial.</p>
CL	381	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability has been revised to clarify the protection provided by NIS functions, as credited in the PI safety analysis, relating to uncontrolled rod withdrawal and rod drop events. In addition to multiple rod drop events, the analysis credits protection for certain single rod drop events. The set of events is cycle/core design specific.</p>

Cat.	No.	Justification for Difference
	3.3-	
PA	382	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability, Function 3 includes statements related to MODES where the control and shutdown banks are withdrawn as a secondary reason for this function not being required in these MODES. The statement is inaccurate, especially regarding bank position in MODE 3. The statement is deleted. This is considered an editorial change.
PA	383	The first sentence is edited to broaden the summary reason for Section 5, so it is inclusive of the events listed in a subsequent paragraph. The subsequent paragraph lists events in addition to uncontrolled rod withdrawal. The third sentence is inappropriate for the topic of the first paragraph and is deleted. This is considered an editorial change.
PA	384	NUREG-1431 Bases 3.3.1 and 3.3.2, Action Section states in part, "... the transmitter, instrument loop, signal processing electronics, or" In the context of the sentence, for PI plant design, the instrument loop and signal processing electronics are synonymous. To avoid confusion about the scope of the equipment being referred to, "signal processing electronics" is deleted. This is considered an editorial change.
PA	385	NUREG-1431 Bases 3.3.1, Actions Section has been revised by adding the following sentence, "When the Required Channels in Table 3.3.1-1 are specified (e.g., on a per steam line, per loop, per SG, and etc. basis), then the Condition may be entered separately for each steam line, loop, SG, and etc. as applicable." This sentence is added for clarification, consistent with the identical statement in NUREG-1431 Bases 3.3.2 Actions Section. This change is editorial in nature.
CL	386	The bases discussion is edited to provide overlap in the use of the AFW and RHR systems for decay heat removal, rather than implying a requirement to switch systems at the MODE change.
X	387	NUREG-1431 Bases 3.3.1, Action F is revised in conjunction with adopting NUREG 3.0.4 (refer to NUREG 3.0.4 Reviewer's Note). As a result of adopting LCO 3.0.4, all ITS Actions were evaluated for individual acceptability of any increased flexibility beyond CTS allowances. Based on this evaluation, where MODE change restrictions were determined to be required in MODES 5 and 6, or in MODES 1, 2, 3, and 4 during unit shutdown, clarification is added in the Bases for Condition F.

Cat.	No.	Justification for Difference
	3.3-	
CL	388	<p>The justification for not requiring the autostop oil pressure trip below P-9 is edited to agree with the justification for not requiring the stop valve closure trip below P-9. The justification of both functions is edited to replace "load rejection" with heat removal as a broader purpose. "Load reject" is a specific steam dump control function that is distinct from "turbine trip"; thus the ISTS use of load rejection in the context of a turbine trip function could be confusing to operators.</p>
PA	389	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 18 has been revised by deleting the following sentence, "Therefore, the interlock Functions do not need to be OPERABLE when the associated reactor trip functions are outside the applicable MODES." The applicable MODES for each Function are listed in Table 3.3.1-1 and discussed in the Bases for the individual interlocks. This general statement is confusing and not necessary. This is considered to be an editorial change.</p>
CL	390	<p>NUREG-1431 Bases 3.3.1, SR 3.3.1.16 states that the response time testing acceptance criteria is contained in the Technical Requirements Manual and/or the USAR. At PI this information is contained in specific plant procedures. Therefore, the NUREG has been revised to state that the response time testing acceptance criteria is located in appropriate plant procedures.</p> <p>The sentence that provides allowance for performing time response testing with transfer function set to one is deleted. PI procedures do not provide for testing in this manner.</p>
PA	391	<p>NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 19 has been revised by relocating and revising the sentence regarding individual trip mechanisms. This change clarifies the location of the requirements for the individual trip mechanisms. This is considered to be an editorial change.</p>
CL	392	<p>NUREG-1431 Bases, References Section has been revised to incorporate all appropriate references that are applicable to PI.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	393	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO, and Applicability Section 18 has been revised by deleting the following, "on increasing power, the P-6 interlock provides a backup block signal to the source range flux doubling circuit. Normally, this Function is manually blocked by the control room operator during the reactor startup." PI does not have a doubling circuit in this system. This change is consistent with the PI design and current licensing basis.
PA	394	Sentences are added to PI ITS Bases 3.3.1 Action O to clarify what constitutes bypass of a train and that performing that bypass in compliance with the Action Note does not result in another Condition entry.
TA	395	This change incorporates TSTF 205 Rev 3.
CL	396	SR 3.3.1.4 and SR 3.3.1.14 Bases are revised to agree with the RTB bypass breaker circuit design at PI. The bypass breakers do not have an identified "shunt trip" and do not have test capability for it. PI CTS does not address "shunt trip" in SR requirements for the bypass breakers.
PA	397	SR 3.3.1.9 and 3.3.1.10 Bases are edited to clarify the SR requirements for the undervoltage and underfrequency relays. TADOT is a new and unfamiliar term to the PI operating staff, resulting in possible confusion between the various SR definitions and requirements. This is considered an editorial change.
CL	398	SR 3.3.1.11 Bases Note 1 specifically excludes neutron detectors from this SR. Also, PI CTS does not contain requirements for specific NIS detector calibrations. Therefore, discussion of neutron detector calibration method is deleted.
PA	399	SR 3.3.1.15 Bases is clarified by deletion of the reference to SR 3.3.1.4. These are different SR's, relating them will lead to confusion regarding the test scope and method. The Bases discussion for this SR is complete without reference to another SR. This is considered an editorial change.
	400	Not used.

Cat.	No.	Justification for Difference
	3.3-	
CL	401	<p>Due to separation of the RTS relay logic and ESFAS relay logic, PI design does not use two-out-of-four logic for ESFAS functions. Per AEC GDC 15, ESFAS functionality is to mitigate accidents. In general, control system spurious operations due to protection system instrumentation failures can not generate accident conditions that require ESFAS actuation. NUREG-1431 Bases statements relating to four sensors or channels, two-of-four logic, or the need for additional redundancy due to control system interaction, are not included in the ITS Section 3.3.2 Bases unless the specific ISTS function discussion is applicable to the PI design. Control system interaction, and additional redundancy requirements are applicable to RTS functions and are addressed in ITS Section 3.3.1 Bases.</p>
CL	402	<p>NUREG-1431 Bases 3.3.2 is revised to address unique PI design. AFW system at PI uses one turbine driven AFW pump and one motor driven AFW pump. One train of RTS and ESFAS relay logic starts each of these.</p> <p>RTS logic provides the low SG level and bus UV logic for AFW pump start. These signals are also used for other RTS functions. ESFAS does not include logic for AFW pump start. SI signal is direct contact output to the AFW pump switchgear breaker or steam inlet control valve control circuit.</p> <p>The main FW system at PI uses two motor driven pumps. Switchgear cell switch contacts provide direct input to AFW pump breaker or steam inlet control valve control circuit for AFW pumps start on loss of both MFWP's. Inoperability of one cell switch contact results in inoperability of this start function for one AFW pump. Therefore, PI ITS Condition I refers to the Condition for one AFW train inoperable.</p>
PA	403	<p>Added clarification of the scope of the relay logic circuitry for each relay logic function within the ESFAS logic. Added clarification of the scope of the circuitry associated with manual initiation functions. This is consistent with the detail provided in NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.a and 1.b.</p>
CL	404	<p>NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Sections 1.c, 2.c, and 4.c are edited to clarify containment pressure transmitter application at PI. PI uses pressure transmitters rather than d/P transmitters.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	405	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability is edited to clarify the accident mitigation purpose for the feedwater isolation function. This isolation is assumed in steam line break accident analyses to limit secondary side mass contribution to containment pressurization. This purpose is further reflected in the rationale for applicable MODES for this function.
CL	406	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.c is edited to clarify the basis for MODE applicability of the high containment pressure function. The statement "...insufficient energy...to pressurize containment" is inaccurate for MODE 4. This is replaced with statements from other sections, Section 1.b and Bases 3.5.2, that more accurately represent the basis for the MODE applicability distinction.
CL	407	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.d is edited to clarify the rod ejection event addressed in the PI safety analysis. PI safety analysis does not acknowledge "A spectrum... ."
CL	408	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.d is revised to discuss the low pressurizer pressure SI logic and PORV pressure control system design considerations used in 2-loop plants.
CL	409	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.d statement "...to mitigate the consequences of an HELB inside containment." is deleted. At PI, common analysis usage is that the HELB acronym is a steam or feed line break, or other high energy line break, distinct from a LOCA. In This context, this function is not credited as the primary protection for mitigation of an in containment HELB in PI safety analysis.
CL	410	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1c, is edited to clarify the accident mitigation purposes for the High Containment Pressure function. In PI accident analyses, an SLB bounds a feedwater line break inside containment. Since there is no specific analysis for the feed line break accident, this function is not specifically credited.

Cat.	No. 3.3-	Justification for Difference
CL	411	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 1.e is edited to clarify event protection provided by the low steam pressure function. The size of the main steam line PORV's limits the depressurization rate due to a stuck open PORV so that low steam line pressure actuation may not occur. This function is not credited for mitigation of this event.
CL	412	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 2 is edited to delete reference to the transfer of containment spray suction from the RWST to the containment sump. PI procedures do not provide for this transfer. Transfer is restricted to ensure adequate supply for RHR use.
CL	413	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 2b is edited to delete reference to "...the large number of components..." The containment spray function actuates a small number of components.
CL	414	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 2c is edited to clarify the basis for MODE applicability. PI analysis ensures that the containment can not be overpressurized to the point of challenging containment design limit in MODE 4. PI does not have an analysis that specifically ensures the setpoint can not be reached in MODE 4.
	415	Not used.
CL	416	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 3 is edited to clarify the process lines that are not isolated by CI at PI.
PA	417	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 4 is edited to delete the sentence regarding units that do not have main steam line check valves. PI has check valves, so the sentence is not applicable.

Cat.	No.	Justification for Difference
	3.3-	
CL	418	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 4 b, c, g, and h are edited to delete the statements "...or other accident" and "...and to limit the mass and energy release to containment." PI safety analysis only credits steam line isolation for mitigation of a steam line break. No other accidents are identified. PI has non-return check valves which limit the release to containment, thus is not dependent on this function for this purpose.
CL	419	<p>NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 4 g and h are edited to delete reference to SG relief valves and relief and safety valves as part of the purpose of these functions. High steam flow may not actuate due to an open relief valve.</p> <p>High-High steam flow will not actuate for either an open relief valve or open safety valve. This function is only credited for a large steam break.</p>
CL	420	NUREG-1431 Bases 3.3.2, Applicable Safety Analysis, LCO, and Applicability, Section 4g is edited to delete the sentence "Below P-12 this...the required protection." PI does not have analysis that demonstrates that high-high steam flow will actuate under these conditions.
	421	Not used.
PA	422	NUREG-1431 Bases SR 3.3.2.8 is edited to clarify applicability of this TADOT at PI. There is one ESFAS manual initiation function that is included in another TADOT in PI ITS, so the general statement "...Manual Actuation Functions..." is not accurate for PI. Also, one function is added to the applicability of this SR.
CL	423	ISTS addresses the applicable MODES for the feedwater isolation function at the end of the function discussion. Treatment of the MODE Applicability is relocated to the sub-sections, 5a, 5b and 5c in PI ITS, since the applicable MODES for function 5b are different than those for 5a and 5c at PI.
	424	Not used.
	425	Not used.

Cat.	No.	Justification for Difference
	3.3-	
PA	426	NUREG-1431 Bases 3.3.1, Applicable Safety Analysis, LCO and Applicability Section 6 states, "The Function monitors...a power increase." The statement is being deleted. PI does not have an analysis or evaluation that provides a specific correlation of the effect of flow changes to the effect of power changes on ΔT . Although generally true, the statement could be interpreted to mean that a specific correlation exists. The sentence is redundant and not necessary to support the discussion.
	427-43 9	Not used.
PA	440	NUREG-1431 Bases 3.3.3, Background has been revised by deleting a sentence in the first paragraph. This sentence is only applicable to Type A variables, not all of the PAM variables. The sentence is not necessary since it is included in a later paragraph that is specific to Type A variables. This is considered an editorial change only.
PA	441	NUREG-1431 Bases 3.3.3, Background and LCO Sections have been revised by deleting specific sentences about Type A variables that are not accurate for these discussions. The Background Section states, "Because the list of Type A variables differs widely between units, Table 3.3.3-1 in the accompanying LCO contain no examples of Type A variables, except for those that may also be Category I variables." The variables between the PI units do not differ, thus making this an incorrect statement. In addition, LCO sentence states that, "These discussions are intended as examples of what should be provided for each Function when the unit specific list is prepared." The ITS LCO, Applicability, Conditions, Table 3.3.3-1, and associated Bases were revised to reflect appropriate PI specific EM instrumentation Functions.
	442	Not used.

Cat.	No.	Justification for Difference
	3.3-	
CL	443	<p>NUREG-1431 Bases 3.3.3, LCO Section was revised by deleting the following statement, "More than two channels may be required at some units if the unit specific Regulatory Guide 1.97 analyses (Ref. 1) determined that failure of one accident monitoring channel results in information ambiguity (that is, the redundant displays disagree) that could lead operators to defeat or fail to accomplish a required safety function." This statement is not applicable to PI since all the Functions in Table 3.3.3-1 only have 2 channels. The CET Function stipulates 4 per quadrant which is 4 CETs. A CET is not considered to be a complete channel. This change is consistent with the intent of NUREG-1431.</p>
CL	444	<p>NUREG-1431 Bases 3.3.3, LCO 3 and 4, "Reactor Coolant System (RCS) Hot and Cold Leg Temperatures" was revised by deleting the following statement; "RCS hot and cold leg temperatures are used to determine RCS subcooling margin. RCS subcooling margin will allow termination of safety injection (SI), if still in progress, or reinitiation of SI if it has been stopped." This statement is not accurate for PI. The CETs provide this Function, not the hot and cold leg temperatures. Therefore, the CET section has also been revised adding this statement for the CETs.</p> <p>In addition, the sentence, "RCS subcooling margin is also used for unit stabilization and cooldown control." This statement was revised and moved to the following paragraph in the same LCO section.</p> <p>The last paragraph of this section was also revised by deleting the sentence, "Reactor outlet temperature inputs to the Reactor Protection System are provided by two fast response resistance elements and associated transmitters in each loop." As stated above, PI does not use the RCS Hot or Cold Leg temperatures to perform the associated functions as stated in the NUREG. Therefore, this description is not applicable to PI design.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	445	<p>NUREG-1431 Bases 3.3.3, LCO 6, 8, and 14 were revised to reflect PIs design and current licensing bases. The NUREG for LCO 6 states, "The Reactor Vessel Water Level Monitoring System provides a direct measurement of the collapsed liquid level above the fuel alignment plate. The collapsed level represents the amount of liquid mass that is in the reactor vessel, above the core." This has been revised to read, "The Reactor Vessel Water Level Monitoring System provides a direct measurement of the collapsed liquid level above the bottom of the vessel. The collapsed level represents the amount of liquid mass that is in the reactor vessel." As stated above, PIs design and current licensing basis measures the collapsed level from the bottom of the vessel not the alignment plate. This design has been previously evaluated and approved by the NRC.</p> <p>LCO 8 states, "Containment pressure is used to verify closure of main steam isolation valves (MSIVs), and containment spray Phase B isolation when High-3 containment pressure is reached." This statement is deleted since it does not represent PIs design or current licensing basis. Containment pressure is not directly indicative of MISV closure and is not used in the PI EOPs to verify closure of the MSIVs. Also, PI design does not include Phase B isolation for containment. This change is consistent with the changes made in NUREG 3.3.1 and 3.3.2.</p> <p>LCO 14, Condensate Storage Tank (CST) Level discussion has been revise to reflect PI current licensing basis and design. The CST level design is a Regulatory Guide 1.97 Type D variable, as previously accepted by the NRC.</p>
CL	446	<p>NUREG-1431, Bases 3.3.3, LCO 7 has been revised to be consistent with the PI EOPs by stating that the containment sump water level is used for accident diagnosis and when to begin recirculation. The PI EOP's do not use this parameter to determine SI termination. This is consistent with PI CLB.</p>
	447	<p>Not used.</p>
CL	448	<p>NUREG-1431 Bases 3.3.3, LCO 15, Core Exit Temperature has been completely revised to be consistent with PI current licensing basis and design as approved by NRC SER dated September 7, 1994.</p>

Cat.	No.	Justification for Difference
	3.3-	
CL	449	NUREG-1431 Bases 3.3.3, LCO 13, Steam Generator Water Level (Wide Range) has been revised by deleting the paragraph stating, "Temperature compensation of this indication is performed manually by the operator. Redundant monitoring capability is provided by two trains of instrumentation. The uncompensated level signal is input to the unit computer, a control room indicator, and the Emergency Feedwater Control System." This is not consistent with PI current licensing basis and design, or with the use of this parameter in the PI Emergency Operating Procedures (EOP's). PI does not use an extended startup range. The wide range indication for the Steam Generators is measured in percent. The control board indication is via a recorder rather than an indicator. PI does not have an "Emergency Feedwater Control System".
	450	Not used.
CL	451	NUREG-1431, Bases 3.3.3, LCO 5 has been revised by deleting the following statements, "RCS pressure is also used to verify closure of manually closed spray line valves and pressurizer power operated relief valves (PORVs)." and, "A final use of RCS pressure is to determine whether to operate the pressurizer heaters." Both of these statements are not consistent with PI design. Pressurizer pressure is used to perform the stated functions, not the RCS pressure.
	452-459	Not used.
CL	460	NUREG-1431 Bases 3.3.3, Applicable Safety Analyses, the phrase "must be retained" has been replaced with "is included". The phrase "must be retained" implies that this set of instrumentation is currently being determined. This is not true since this list is in CTS and therefore "is included" is more accurate.
	461	Not used.
CL	462	NUREG-1431 Bases 3.3.3, LCO, the phrase "the recommendations of" is not included since Reference 1 has been revised to be USAR Section 7.10 which describes the plant and is not "recommendations."

Cat.	No.	Justification for Difference
	3.3-	
CL	463	NUREG-1431 Bases 3.3.3, LCO 5, the third use for RCS pressure has been revised to read "to determine when to manually restart ECCS Pumps." This statement is consistent with the presentation of the two previous uses and is more accurate since RCS pressure does not actually restart any pumps. It provides indication for the operators to use to determine when to start the pumps.
	464	Not used.
	465	Not used.
CL	466	NUREG-1431 Bases 3.3.3, LCO 10, PI use of the term "high energy line break (HELB)" has a site specific meaning which differs from the use of the term in NUREG-1431. A "LOCA with core damage" is a specific design consideration for these rad monitors at PI. The monitors do not provide information relative to determining if a steam line break is inside or outside containment. This determination is via other parameters.
	467	Not used.
CL	468	NUREG-1431 Bases 3.3.3, LCO 13, PI does not credit use of the Steam Generator Water Level (Wide Range) to "identify the faulted SG following a tube rupture"; thus this use is not included in the ITS.
CL	469	NUREG-1431 Bases 3.3.3, LCO 13, the discussion of operator use of this instrumentation has been revised to include terminology with which the PI operators are familiar and to apply specifically to the PI use of this instrumentation.
CL	470	NUREG-1431 Bases 3.3.3, LCO 14, the list of accidents which require AFW has been revised to be accurate for PI.
CL	471	NUREG-1431 Bases 3.3.3, Action A.1, the parenthetical statement is not included since all PI Functions have two channels or are exempted from having a backup Function. Thus this statement is not accurate for PI and not needed.

Cat.	No.	Justification for Difference
	3.3-	
CL	472	NUREG-1431 Bases 3.3.3, SR 3.3.3.2, the sentence "The calibration method for neutron detectors is specified in the Bases of LCO 3.3.1, 'Reactor Trip System (RTS) Instrumentation'." is not included in the ITS since this is not true for the PI ITS. See CL3.3-398.
CL	473	NUREG-1431 Bases 3.3.3, LCO 9, since there is more than one means of determining the status of the containment isolation valves, clarification is provided on which means are acceptable to meet the requirements of this Specification.
CL	474	NUREG-1431 Bases 3.3.3, Action G.1, since these Technical Specifications only apply to the PI units, the clause "At this unit" is not included. To provide more guidance for the operators, the CETs have been included as an example of alternate means of monitoring Reactor Vessel Water Level.