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Nuclear Management Company, LLC
Prairie Island Nuclear Generating Plant
1717 Wakonade Dr. East
Welch MN 55089

January 25, 2002

10 CFR Part 50
Section 50.90

U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Supplement to License Amendment Request dated December 11, 2000 Conversion to Improved Technical Specifications (ITS)

By letter dated December 11, 2000, Prairie Island submitted a License Amendment Request (LAR) to convert the current Technical Specifications (CTS) using the guidance of NUREG-1431, Revision 1 as amended by NRC and industry Technical Specification Task Force (TSTF) documents. This letter supplements the subject LAR.

By letter dated December 19, 2001, the NRC Staff sent the Nuclear Management Company (NMC) requests for additional information (RAIs) regarding our LAR dated December 11, 2000 to convert to Improved Technical Specifications. Attachment 1 to this letter contains the NRC RAIs for ITS Specification 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation", and the NMC answers to these RAIs.

NMC also proposes to make review changes and corrections identified as E18 and E19. Changes designated as E18 provide resolution to many of the NRC open issues on ITS Section 3.6, "Containment Systems." ITS Chapter 5.0 changes, designated as E19, enable the Prairie Island (PI) Operations Department to establish licensed Shift Manager as a position separate from the licensed Shift Technical Advisor position as discussed with Mr. T.J. Kim of the NRC.

A001

Attachment 2, Page List by RAI Q, provides a cross-reference of RAIs and other sources of page changes to the pages that they changed.

Attachment 3 to this letter contains Revision 6 change pages which implement answers to Specification 3.3.2 RAIs and the Review Change/Errata changes designated as E18 and E19. Changes to the Revision 6 pages are sidelined in the right margin beside the line(s) which have been revised. Change Pages from Parts A, B, D, F, G or Cross-References are dated 12/1/01. Change Pages from Parts C and E are marked as Revision 6 with a small textbox below the revision sideline which contains "R-6".

The Significant Hazards Determinations and Environmental Assessments, as presented in the original December 11, 2000 submittal and as supplemented March 6, 2001, July 3, 2001, August 13, 2001, November 12, 2001, December 12, 2001 and by the Part G change pages in Attachment 3 of this letter, bound the proposed license amendment.

NMC is notifying the State of Minnesota of this LAR supplement by transmitting a copy of this letter and attachments to the designated State Official.

To the best of my knowledge and belief, the statements contained in this document are true and correct. In some respects these statements are not based on my personal knowledge, but on information furnished by other Prairie Island Nuclear Generating Plant (PINGP) and NMC employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

In this letter NMC has not made any new or revised any Nuclear Regulatory Commission commitments. Please address any comments or questions regarding this matter to myself or Mr. Dale Vincent at 1-651-388-1121.

Mano K. Nazar
Site Vice President
Prairie Island Nuclear Generating Plant

(Copies and attachments listed on Page 3)

C: Regional Administrator - Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
James Bernstein, State of Minnesota
J E Silberg

Attachments:
Affidavit

1. NRC RAIs for ITS Specification 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation", and NMC Responses.
2. Page List by RAI Q
3. Revision 6 Change Pages

UNITED STATES NUCLEAR REGULATORY COMMISSION

NUCLEAR MANAGEMENT COMPANY, LLC

PRAIRIE ISLAND NUCLEAR GENERATING PLANT DOCKET NO. 50-282
50-306

REQUEST FOR AMENDMENT TO
OPERATING LICENSES DPR-42 & DPR-60

SUPPLEMENT TO LICENSE AMENDMENT REQUEST DATED DECEMBER 11, 2000
CONVERSION TO IMPROVED TECHNICAL SPECIFICATIONS (ITS)

By letter dated January 25, 2002, Nuclear Management Company, LLC, a Wisconsin corporation, is submitting additional information in support of the License Amendment Request originally submitted December 11, 2000.

This letter contains no restricted or other defense information.

NUCLEAR MANAGEMENT COMPANY, LLC

By [signature]
Mano K. Nazar
Site Vice President
Prairie Island Nuclear Generating Plant

State of Minnesota

County of Goodhue

On this 25th day of January 2002 before me a notary public acting in said County, personally appeared Mano K. Nazar, Site Vice President, Prairie Island Nuclear Generating Plant, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Nuclear Management Company, LLC, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true.

[signature]

MARLYS E. DAVIS
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan. 31, 2005

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VanTassell	1			2
Marty (Manifest only)				
Hall	1		20	2
PITC				1
Eng Libr				1
Lic Libr				1
NL File	1			
TS History	1			1
PI Records	1			1
Betty Underwood (OSRC)	1			
Totals	**42**	**4**	**45**	**16**
LEE WILLIAMS	1			
BILL JEFFERSON	1			

Prairie Island Nuclear Generating Plant

Attachment 1

to
Supplement dated January 25, 2002
to License Amendment Request dated December 11, 2000
Conversion to Improved Technical Specifications (ITS)

NRC RAIs for ITS Specification 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation" and NMC Responses

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

3.3.2-01

<u>RAI 3.3.2- Undocumented CTS Changes - #1, page 27 of 72</u>
POTENTIAL BEYOND SCOPE ISSUE
CTS Table TS 3.5-2B, Func 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 NUREF-1431. Revise the ITS to include the CTS requirements for Manual Initiation of Main Steam Line Isolation .

NMC Response:

Parts affected by this RAI:
None

The main steam line isolation manual initiation function is not deleted from ITS. As discussed in Part A of each ITS submittal Section, deleted requirements are identified by strikethrough. The manual steam line isolation function is shown as "Addressed Elsewhere", not as strikethrough. As discussed in CL3.3-223, the manual switch for these valves is part of ITS Specification 3.7.2. CTS does not have a Specification for the main steam isolation valves and therefore, this function is included with the instrumentation functions. However, there is no instrumentation or logic associated with these switches so they do not belong in Section 3.3. Like switches for valves for other TS systems, in ITS these switches are part of Specification 3.7.2, Main Steam Isolation Valves. As discussed in the Bases for SR 3.7.2.1, these switches are tested as part of the MSIV test. If these switches are inoperable, then the MSIV is inoperable in accordance with LCO 3.7.2. No changes have been made to the ITS submittal in response to this RAI.

3.3.2-02

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

NMC Response:

Parts affected by this RAI:
Part C - CTS markup

The basis for addition of this note is DOC L3.3-45. CTS page 61 of 72 has been revised to show this DOC.

DISCUSSION OF CHANGE

3.3.2-03 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.

332 Comment:

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

NMC Response:

NMC will restore the high steam flow signal input to MSLI logic in the ITS in a future supplement to this LAR.

3.3.2-04 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>>

332 Comment:

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.

NMC Response:

Parts affected by this RAI:
Part C - CTS markup
Part D - Discussion of Changes
Part G - NSHD

The text of CTS Table 3.5-2B Action 25 does not match the presentation of ITS LCO 3.3.2 Condition F. However, Condition F in conjunction with ITS Table 3.3.2-1 Function 4a is equivalent to CTS Table 3.5-2B Action 25. Action 25 requires the inoperable channel to be restored to OPERABLE status in 6 hours or be in MODE 3 in 12 hours. Continued operation in MODE 3 is permitted if the main steam isolation valves are closed or the plant must be in MODE 4 in 18 hours. Condition F requires the inoperable train to be restored to OPERABLE status within 6 hours or the plant must be in MODE 3 in 12 hours and MODE 4 in 18 hours. However, the Applicable Mode or Other Specified Conditions for Function 4a is MODE 3 as modified by Note c. Note c exempts the plant from the operability

3.3.2-04 A 029 (continued)

requirements of Function 4a when the both main steam isolation valves (MSIVs) are closed. Thus, if the plant was unable to restore Function 4a to OPERABLE status within 6 hours, entry into MODE 3 would be required. Once the plant is in MODE 3, the plant could shut the MSIVs which would exit the plant from the Applicable Mode or Other Specified Conditions for Function 4a and operation in MODE 3 could continue; that is, further shutdown to MODE 4 in accordance with Condition F would not be required. Therefore, CTS Table 3.5-2B Action 25 and ITS 3.3.2 Condition F in conjuntion with Table 3.3.2-1 Function 4a are functionally equivalent. Parts C and D have been revised to include a new DOC which explains this functional equivalance as discussed above.

3.3.2-05 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.

<u>332 Comment:</u>

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 cabinents." 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.

3.3.2-05 A 035 (continued)

NMC Response:

Parts affected by this RAI:
None

It is NMCs position that there are no nomenclature/design mismatches between DOC A3.3-025 and the proposed ITS 3.3 Bases. As discussed in this DOC, this nomenclature differs from LAR 111/104 which conformed CTS to NUREG-1431 (ISTS). The proposed ITS Function name "Automatic Actuation Relay Logic" is technically correct for Prairie Island (PI) and should be implemented with the many other changes proposed in the ITS conversion.

ISTS Section 3.3 Specification and Bases are based on a plant which has a Solid State Protection System (SSPS). The SSPS has solid state logic boards. The output signal from these logic boards goes to actuation relays which in turn actuate the equipment required to mitigate the initiating plant condition. Because of the two distinct design features which generate the actuation signal, the name for this Function is "Automatic Actuation Logic and Actuation Relays" where "Automatic Actuation Logic" refers to the solid state portion of the actuation system and "Actutation Relays" refers to the actuating relays.

PI fundamentally differs from this design in that relay logic is used at PI to generate the actuation signal. Typically the actuation relays are part of the logic and share the same cabinet with the logic relays. Thus the ISTS name for this Function is inaccurate and could be misleading for PI. The proposed Function name "Automatic Actuation Relay Logic" is technically accurate in that PI has an automatic system for actuation of equipment based on relay logic. This title is an important distinction that readily defines the PI ESFAS design as differing from the ISTS design. No changes to the ITS submittal have been made in response to this RAI.

3.3.2-06 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.

<u>332 Comment:</u>
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.

NMC Response:

Parts affected by this RAI:
Part D - Discussion of Change
Part G - NSHD

DOC L3.3-036 and NSHD L3.3-036 have been revised to include discussion of the low probability of an event requiring SI on high containment pressure in MODE 4. Probability is a consideration for SI in MODE 4 while it is <u>NOT</u> a consideration for containment spray (CS) in MODE 4 because of the different containment pressure initiation signals and the different functions of these systems. SI initiates on a High-Containment Pressure signal with an Allowable Value of 4 psi which may be indicative of plant conditions which require core cooling. In MODES 1, 2, and 3, the reactor coolant system (RCS) temperatures, pressures and energy content are high but the probability of an event requiring SI is low. In MODE 4 with RCS temperatures, pressures and energy content low, this is a lower probability event and there is sufficient time to manually initiate SI. CS initiates on a High-High-Containment Pressure signal with an Allowable

3.3.2-06 L 036 (continued)

Value of 23 psig which may be indicative of plant conditions which require CS to prevent overpressurizing containment. In MODE 4, there is insufficient stored energy in the steam generators and reactor coolant system to overpressurize containment following a main steam line break and calculations indicate the pressure may not even get to 23 psig, the high-high containment pressure CS initiation allowable value. Since analyses demonstrate that containment can not be overpressurized, probability is not a consideration for CS in MODE 4. L-DOC and NSHD L3.3-037 have also been revised to clarify the applicable considerations for containment spray in MODE 4.

3.3.2-07 A 040 New Hi-Hi Steam Generator Level Allowable Value. CTS includes operability requirements for Hi-Hi Steam Generator Level input.

332 Comment:
NEW BEYOND SCOPE ISSUE
The acceptability of the new ITS Allowable Value (≤ 90%) is open pending staff review.

NMC Response:

Parts affected by this RAI:
None

It is NMCs position that this change is not beyond scope. CTS does not have a limiting value for high-high steam generator level; therefore a new value is included for completeness and conformance with NUREG-1431. The methodology for establishing this value was submitted to the NRC by letter dated March 6, 2001.

3.3.2-08 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.

332 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.

NMC Response:

Parts affected by this RAI:
None

In its entirety, 10 CFR 50.36, Criterion 1 states, "Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary." At Prairie Island the Feedwater Isolation on reactor trip with 2 of 4 low Tave Function is not "used to detect" reactor coolant system leakage. This Function does not actuate until the reactor has already tripped. If there is significant abnormal degradation of the reactor coolant pressure boundary, other installed instrumentation better suited to the purpose would have previously indicated the condition before this Function is actuated. This Function does not meet 10 CFR 50.36 Criterion 1 or any of the other Criteria and can be relocated to the TRM. No changes have been made to the ITS submittal in response to this RAI.

3.3.2-09 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.

<u>332 Comment:</u>

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).

NMC Response:

Parts affected by this RAI:
None

Note (x) applies only to the Feedwater Isolation (FWI) Function in MODES 2, and 3. This Note states, "Except when all MFRVs and MFRV bypass valves are closed and in manual or isolated by a closed non-automatic valve." The purpose of the FWI Function is to isolate the main feedwater (MFW) lines in MODES 1, 2 and 3 when there is an SI signal or Hi-Hi steam generator (SG) level. The plant can not remain in MODE 1 with the MFW lines isolated. In MODES 2 and 3 the MFW lines may be isolated since the Auxiliary Feedwater System (AFW) is able to provide the required SG makeup. If the MFW lines are isolated in MODES 2 and 3 by means which do not allow the lines to be opened automatically, then the automatic FWI Function for SI or Hi-Hi SG level serve no purpose since the lines are already isolated and will remain isolated until operator action is taken. For this reason Note x was included to modify the Applicability of this Function in MODES 2 and 3 when the MFW lines are isolated by closing and de-activating the MFRVs and MFRV bypass valves or isolating

3.3.2-09 L 045 (continued)

these lines by closing a non-automatic valve. As stated in DOC L3.3-45 "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." No changes to the ITS submittal have been made in response to this RAI.

3.3.2-10 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.

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

NMC Response:

Parts affected by this RAI:
None

The CTS Table 3.5-2B Footnote states, "The Auxiliary Feedwater auto start of the Turbine and Motor Driven AFW pumps caused by the Trip of Both Main Feedwater Pumps maybe (*sic*) bypassed during Startup and Shutdown Operations when the Main Feedwater Pumps are not required to supply feedwater to the Steam Generators." In ITS this Note has been replaced by an equivalent Note which states, "This function may be bypassed during alignment and operation of the AFW system for SG level control." In CTS, Table 3.5-2B Function 7d, "Trip of Both Main Feedwater Pumps" was further split into two subfunctions for the Turbine Driven and Motor Driven AFW pumps. The Specification requirements for these two subfunctions are identical, so in ITS, a single set of requirements is given for Function 7d. Since ITS Note g applies only to ITS Function 6e which is the "Trip of both Main Feedwater Pumps", it is unnecessary to repeat the name of the Function in the Note. Since no distinction is made in ITS Function 6e for application to the motor driven or turbine driven AFW pump, this

3.3.2-10 A 048 (continued)

Function applies to both pumps and therefore it is unnecessary to state the AFW pumps to which this Note applies. From this discussion we can see that the portion of the CTS Note which states "The Auxiliary Feedwater . . . Main Feedwater Pumps" has been replaced with the functionally equivalent clause "This function".

The AFW system at Prairie Island (PI) serves two functions: 1) it provides emergency makeup to the steam generators (SG) following loss of normal feedwater and 2) it is provides SG makeup during normal reactor startup and shutdown. During normal startup and shutdown operations below approximately 2% RTP, the quantity of makeup water is small compared to the capacity of the main feedwater pumps. The AFW system is able to supply the SG makeup needs and thus the Main Feedwater Pumps are not required to supply feedwater to the SGs. Furthermore, due to the design of the main feedwater system, below approximately 2% RTP, the main feedwater pumps can not be used for SG level control and the AFW system must be used. When the AFW system is aligned and operated to provide SG makeup during normal startup and shutdown, the controls and valves can not be in the required position for emergency AFW operation. One of these controls that must be bypassed to allow AFW alignment and operation during normal startup and shutdown is the Main Feedwater Pump Trip, ITS Table 3.3.2-1 Function 6e. As the plant passes through approximately 2% RTP a transition point is reached. Below this transition point AFW is aligned and operated to control SG level and MFW is not required. Above this transition point MFW is required and AFW is not aligned and operated to control SG level. Thus the CTS clause, "during Startup and Shutdown Operations when the Main Feedwater Pumps are not required to supply feedwater to the Steam Generators" is functionally equivalent to and has been replaced by the ITS clause, "during alignment and operation of the AFW system for SG level control".

3.3.2-10 A 048 (continued)

The discussion in the preceding paragraphs shows that the proposed ITS is equivalent to CTS bypass allowances. The wording of this Note was revised to be consistent with NUREG-1431 SR 3.7.5.1 Note as modified by TSTF-245, Revision 1. The focus of this Note is AFW system status compared to the CTS Note which focuses on Main FW system status. If the CTS Note was retained, then ITS SR 3.7.5.1 Note would have to be changed. To remain consistent with ISTS, no changes have been made to the ITS submittal in response to this RAI.

3.3.2-11	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.

332 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 declared 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).

NMC Response:

Parts affected by this RAI:
Part B - Final ITS pages
Part C - CTS markup
Part D - Discussion of Change
Part E - ISTS markup

The AFW logic relays are in the same cabinet with the reactor trip system since the Low-Low Steam Generator Level signal is common to both of these logic trains. Therefore, the CTS provision for bypassing the auxiliary feedwater (AFW) system logic to perform surveillance testing is necessary to perform reactor trip system logic and the ITS submittal has been revised to retain this provision. CTS requires declaring an AFW pump out of service (OOS) while ITS requires declaring an AFW

3.3.2-11 A 055 (continued)

train OOS. These requirements are equivalent since both trains of AFW have a single AFW pump. Declaring an AFW pump OOS means that train is also OOS. Since these requirements are equivalent, this is also an administrative change. The CTS provision for a logic channel inoperable has been changed to allow a train inoperable which is also an administrative change. DOC A3.3-055 has been revised to include these considerations. The ISTS model for declaring supported systems inoperable was considered when 3.3.2 Required Action (RA) I.1 was written but was not used for the following reasons: the supported system is the same system as the support system; once ITS LCO 3.7.5 Required Actions are entered, the ITS will require the relay logic to be restored to OPERABLE status; making a statement in RA I.1 to restore the relay logic to OPERABLE status would be duplicative of the requirements of 3.7.5; the only logical Completion Time for restoring the AFW relay logic to OPERABLE status is 72 hours which would duplicate the Completion Time required by ITS LCO 3.7.5; and the duplication of requirements and Completion Time by use of the ISTS format could cause operator confusion. It appears that this PI requirement is a unique situation in which use of the ISTS format does not add value and is not warrented. Required Action I.1 has been revised to format use of the "Immediately" Completion Time in accordance with the guidance of ISTS and the Writer's Guide.

3.3.2-12 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.

332 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.

3.3.2-12 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.

NMC Response:

Parts affected by this RAI:
None

The design of the Prairie Island High-High Containment Pressure input to containment spray (CS) is described in the ITS Bases, including a statement which defines a channel in this Function. This design is shown in the diagram below.
(See page 19 for Containment Pressure diagram)

There are six high-high containment pressure sensors which are combined in three sets of two. Each pair of two sensors input to OR-Logic to provide an output. The OR-Logic inputs to a 3-out-of-3 AND-Logic to provide an output to actuate CS. Thus, if one sensor in each set indicates High-High Pressure, CS is actuated.

CTS, through Table 3.5-2B Function 2b, defines a channel as the output at A, B or C on the figure with two sensors per channel. CTS defines the total channels as three channels OPERABLE with 2 sensors per channel and the minimum channels is three channels with 1 sensor per channel. To simplify the terminology and be consistent with ISTS terminology, ITS changed the definition of channel. ITS, through Table 3.3.2-1 Function 2c, defines each sensor as a channel.

CTS Table 3.5-2B, Action 21 allows plant operation to continue with the number of OPERABLE channels less than the total number of channels

3.3.2-12 L 58 (continued)

provided: 1) the "inoperable channel(s)" are tripped within 6 hours; and 2) the minimum channels are OPERABLE. This means one sensor in each set can be inoperable provided the inoperable channel is tripped. However, as the third inoperable channel is tripped in accordance with CTS, the CS will be actuated because there will be three inputs to the 3-out-of-3 AND-Logic. CTS will allow operation indefinitely with one sensor inoperable or two sensors inoperable in two different channels. The CTS use of "sensors" and "channels" is confusing and inconsistent with ISTS.

ITS requires 3 sets of 2 channels OPERABLE which is consistent with ISTS. Through 3.3.2 Conditions D and E, ITS requires 4 channels to be OPERABLE which is more restrictive than CTS which only requires 3 channels (sensors) to be OPERABLE.

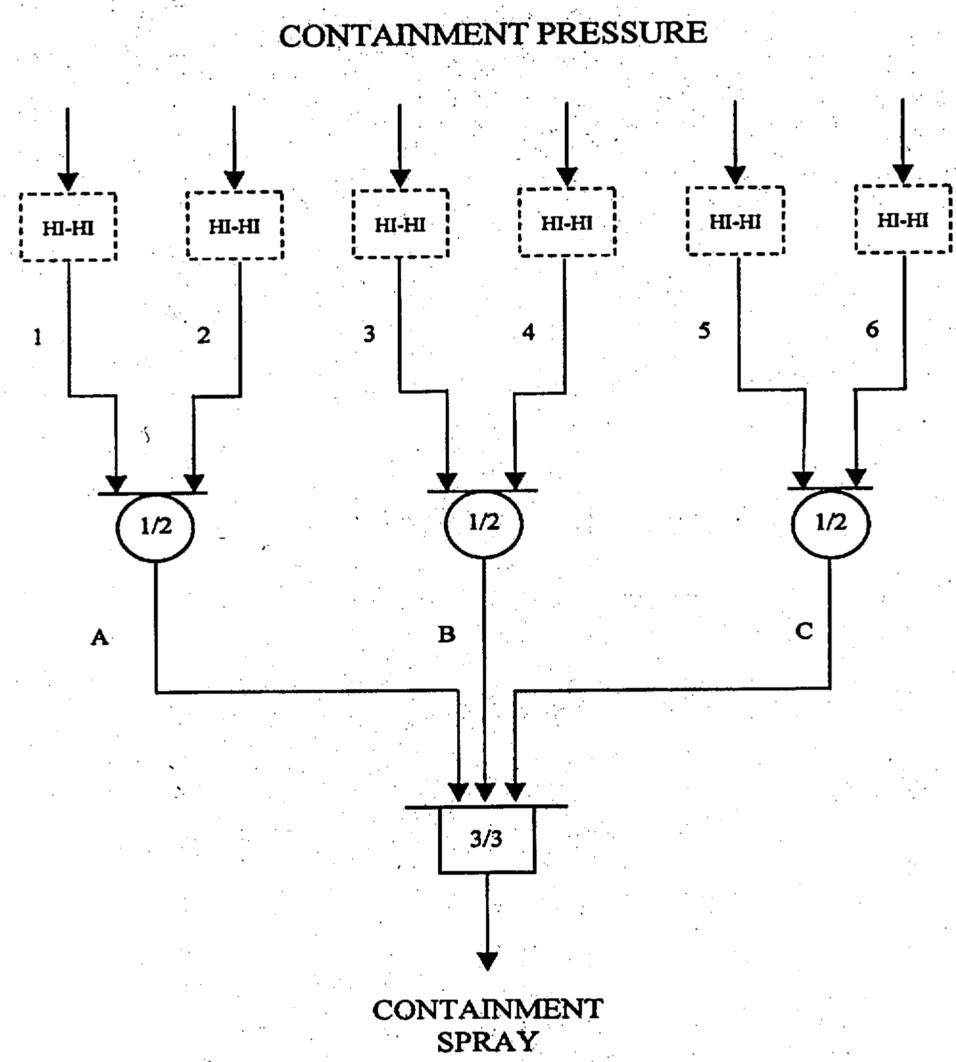
Proposed 3.3.2 Condition E will allow indefinite operation with two ITS channels (CTS sensors) inoperable with one ITS channel (CTS sensor) in bypass. This may be a less restrictive change which is the reason for L-DOC L3.3-058. CTS will allow three sensors (ITS channels), one in each pair, to be inoperable provided they are tripped. However, as noted previously, with three channels tripped, CS will actuate so this is not practical flexibility which can be used. The intent of Condition E is to retain some of the CTS flexibility by allowing two ITS channels (CTS sensors) inoperable. With one ITS channel inoperable and RA D.1 met, one ITS channel in each of the other two sets are required to actuate CS. When a second ITS channel becomes operable, the effect on CS actuation depends on whether the channel is paired with the first inoperable channel or in one of the other sets. If the second inoperable channel is paired with the first inoperable channel, then there is no further impact on CS actuation since the signal is already present from tripping the first inoperable channel in that set. If the second inoperable channel is in one of the other sets, then tripping the second channel will cause two of the three required signals for CS actuation to be present. This would leave the plant vulnerable to actuation of CS due to a spurious signal from a single ITS channel.

3.3.2-12 L 58 (continued)

As a compromise, ITS 3.3.2 Condition E proposes to place the second inoperable ITS channel in bypass. If the second inoperable channel is paired with the first inoperable channel, then again there is no further impact on CS actuation since the signal is already present from tripping the first inoperable channel in that set. If the second inoperable channel is in one of the other sets, placing this second inoperable channel in bypass still leaves one channel in that set to detect high-high pressure and provide a signal. The third set is unaffected. It is NMC's position that allowing only a single High-High Containment Pressure ITS channel to be inoperable is significantly more restrictive than CTS and is not necessary with 1-out-of-2, three-times logic. The Prairie Island design for this Function differs from both of the designs on which ISTS is based and therefore, ISTS Condtion D is not appropriate. CTS should not be retained because it will allow actions which will actuate CS which could create a safety consideration and the definition of channels could be confusing. Based on the discussion in DOC L3.3-058 and NSHD L3.3-058, the proposed ITS with the first inoperable ITS channel tripped and the second inoperable channel bypassed is not a signifcant safety hazards consideration and should be an acceptable ITS for Prairie Island. No changes have been made to the ITS submittal in response to this RAI.

(See next page for Containment Pressure diagram)

3.3.2-12 L 58 (continued)



3.3.2-13 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)

332 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.

NMC Response:

Parts affected by this RAI:
Part D - Discussion of Change

CTS Table TS.4.1-1B Note 27 has been applied to CTS surveillance requirements designated as ITS SR 3.3.2.6. The Text Box to the left of Note 27 in the Part C markup indicates this Note is the SR 3.3.2.6 Note and the Text Box to the right of Note 27 in Part C indicates DOC M3.3-105 applies to this Note. DOC M3.3-105 has been revised to explicitly reference SR 3.3.2.6.

3.3.2-14 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.

332 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.

NMC Response:
Parts affected by this RAI:
None.

The Automatic Actuation Relay Logic needs to be OPERABLE in Mode 3 in the event of a Main Steamline Break (MSLB) which may initiate a Safety Injection (SI) due to high containment pressure. In the event of a MSLB and subsequent SI, the MFRVs and MFRV bypass valves will automatically close. As stated in Table 3.3.2-1, footnote e, the Automatic Actuation Relay Logic does not need to be OPERABLE in Mode 3 if the MFRVs and MFRV bypass valves are closed. Based on the above, no changes were made to the submittal.

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

	Cat.	No. 3.3-	Justification for Difference
3.3.2-15	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. __332 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**

	Cat.	No. 3.3-	Justification for Difference
3.3.2-15	TA	176	**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.**

NMC Response:
Parts affected by this RAI:
Part B: Bases 3.3.1, Background Section
Part E: Bases 3.3.1, Background Section

NUREG-1431, Table 3.3.1-1 and Table 3.3.2-2 column titled "TRIP SETPOINT" was not included in the PI ITS based on the ISTS Note (a) for the subject columns. This Note states, " Reviewer's Note. Unit specific implementations may contain only Allowable Value depending on Setpoint methodology used by the unit." PI uses a PI specific setpoint methodology which was submitted to the NRC by letter dated March 6, 2001. Based on meeting the reviewer's note requirements, PI deleted the TRIP SETPOINT column for both Tables 3.3.1-1 and 3.3.2-1. In addition, PI adopted TSTF 355 which provides a detailed discussion in Bases 3.3.1 about the relationship between the LSSS and the Allowable Values. The TSTF states, "Use of the trip setpoint to define 'as found' OPERABILITY and its designation as the LSSS under the expected circumstances described above would result in actions required by both the rule and technical specifications that are clearly not warrented. However, there is also some point beyond which the device would have not been able to perform its function due, for example, to greater than expected drift. This value needs to be specified in the technical specifications in order to define OPERABILITY of the devices

	Cat.	No. 3.3-	Justification for Difference
3.3.2-15	TA	176	and is designated as the Allowable Value which, as stated above, is the same as the LSSS. The Allowable Values specified in Table 3.3.1-1 serves as the LSSS such that a channel is OPERABLE if the actual setting is found not to exceed the Allowable Value during the CHANNEL OPERATIONAL TEST (COT)." Based on the above discussions and submitting our setpoint methodology, no changes to Tables 3.3.1-1 and 3.3.2-1 are being made. In addition, the subject Tables are consistent with other approved plant submittals. During the review of TSTF 355, a typographical error was noted. This was corrected and the appropriate pages incorporated into this RAI.
3.3.2-16	CL	222	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. **<u>332 Comment:</u>** **BSI Issue, see DOC L3.3-058** **NMC Response:** Parts affected by this RAI: None Reference response to RAI 3.3.2-12.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-17	CL	223	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.

332 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)

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.

NMC Response:
Parts affected by this RAI:
None

	Cat.	No. 3.3-	Justification for Difference
3.3.2-17	CL	223	(continued) Reference RAI 3.3.2-01 for a discussion about the Manual Main Steam Line Isolation Function. The ESFAS Interlock P-4 (Reactor Trip) Function is not required by the CTS, nor designated in USAR Table 7.4-3, as a credited Reactor Trip Interlock Permissive. Therefore, P-4 is not incorporated into the PI ITS. No changes to the ITS submittal have been made in response to this RAI.
3.3.2-18	CL	227	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. **<u>332 Comment:</u>** **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.** **NMC Response:** Parts affected by this RAI: None As noted in response to RAI 3.3.2-11, the ISTS model for declaring supported systems inoperable was considered when 3.3.2 Required Action

	Cat.	No. 3.3-	Justification for Difference
3.3.2-18	CL	227	(continued) (RA) I.1 was written but was not used for the following reasons: the supported system is the same system as the support system; once ITS LCO 3.7.5, RA is entered, the ITS will require the relay logic to be restored to OPERABLE status; making a statement in RA I.1 to restore the relay logic to OPERABLE status would be duplicative of the requirements of LCO 3.7.5; the only logical Completion Time for restoring the AFW relay logic to OPERABLE status is 72 hours which would be duplicative of the Completion Time required by ITS LCO 3.7.5; and the duplication of the RA and Completion Time by use of the ISTS format could cause operator confusion. It appears that this PI requirement is a unique situation in which use of the ISTS format does not add value and is not warrented. Required Action I.1 has been revised to format use of the "Immediately" Completion Time in accordance with the guidance of ISTS and the Writer's Guide.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-19	CL	231	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. **332 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.** **NMC Response:** Parts affected by this RAI: None Reference RAI 3.3.2-17 for discussion concerning P-4. PI does not have P-11 or P-12 and therefore they are not included in the ITS. A review of USAR Table 7.4.3 - Reactor Trip Interlock Permissives verified that PI does not contain the subject permissives. Therefore; they are not included in the ITS.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-20	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.

332 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).

	Cat.	No. 3.3-	Justification for Difference
3.3.2-20	CL	233	(continued)

NMC Response:
Parts affected by this RAI:
None

Based on PI design, the subject Master and Slave relay tests (ISTS SR 3.3.2.4 and 3.3.2.6) cannot be performed separately and therefore were not included in the ITS. PI does not have SSPS instrument logic, rather a relay instrument logic. Based on PI design, logic testing cannot be separated out into the Logic, Master Relays, and Slave Relays. PI logic incorporates the Master and Slave Relays into the Automatic Actuation Relay Logic system. In addition, the Slave Relays, for the most part, cannot be blocked when tested. Therefore, they will actuate associated equipment. PI currently tests the Automatic Actuation Logic, which includes the Master and Slave Relays every refueling outage as part of the Integrated SI Test.

Even though the systems mentioned above in the RAI contain Master and Slave Relays, they fall in this same design category as discussed above. Therefore, the Master and Slave Relays cannot be tested independent of the entire actuation logic. This is the same situation as the AFW logic (Function 6a) which does not require separate testing of the Logic, Master Relays, and Slave Relays. Again, there is no mechanism for isolating or blocking the Slave Relays; therefore, testing would result in equipment actuation. Based on discussion with the NRC, NMC is evaluating additon of ISTS SR 3.3.2.4 to apply to those Master Relays which are part of the instrumentation logic and are therefore tested every 31 days on a staggered test basis with the Actuation Logic Test.

In addition, PI has revised the name of the function to Automatic Actuation Relay Logic instead of using the NUREG title, Automatic Actuation Logic and Actuation Relays. This title change is needed to clarify and accurately reflect the PI design. PI cannot separate out parts of the Automatic Actuation Logic and Relays; therefore, using the title Automatic Actuation Relay Logic is correct. If the NUREG title were used, it would appear that the Automatic Actuation Logic can be tested and the Actuation Relays can be tested separately. Again, this is not the case with the PI design.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-21	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.

332 Comment:

The Note "Setpoint Verification is not required" is added to SR 3.3.2.5. Provide justification for the addition of this Note.

NMC Response:
Parts affected by this RAI:
None

The Note, "Setpoint Verification is not required" was added for completeness and consistent with other ISTS Functions with manual actuation that don't rely on any setpoints for actuation. ISTS does not provide a TADOT with a Staggered Test Basis Frequency so SR 3.3.2.5 was created. ISTS does provide SR 3.3.2.4 which requires a TADOT and includes a Note that exempts manual initiation functions from setpoint verification. Since SR 3.3.2.5 only applies to the SI manual function, this Note is applicable for the same reason it was applicable to ISTS SR 3.3.2.4.

This SR tests the manual actuation of the SI system which ensures that the operator has **manual** ESFAS initiation capability. There is no setpoint to be verified, this is strictly a manual actuation of the SI system. In addition, manual initiation of the SI system ensures that the entire circuitry is OPERABLE, however, it does not test or rely upon any setpoints. The Setpoint verification is accomplished under Function 1.b, 1.c, 1.d. and 1.e which use SR 3.3.2.1, 3.3.2.3, and 3.3.2.6 respectively.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-22	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. <u>332 Comment</u>: **see DOC A 3.3-035** **NMC Response:** Parts affected by this RAI: None Reference RAI 3.3.2-05.
3.3.2-23	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. <u>332 Comment:</u> **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.** **NMC Response:** Parts affected by this RAI: None Reference RAI 3.3.2-14.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-24	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.

332 Comment:

BSI Issue - Staff review of the proposed high high steam generator water level setpoint is required.

NMC Response:

No NMC response required at this time.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-25	CL	265	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.

332 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.

NMC Response:
Parts affected by this RAI:
Part F: JFD CL3.3-265

JFD CL3.3-265 has been revised stating that PI does perform a FUNCTIONAL TEST (TADOT) every refueling outage for both main feedwater pumps; however, it does not include any calibration of allowable values. The PI CTS does not provide or require any allowable values for the main feedwater pumps.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-26	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.

332 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.

NMC Response:
Parts affected by this RAI:
None

Reference response to RAI 3.3.2-01.

	Cat.	No. 3.3-	Justification for Difference
3.3.2-27	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.

332 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".

NMC Response:

ISTS Table 3.3.2-1 Footnote (j) has been renumbered to ITS Footnote (e) due to the deletion of other Footnotes associated the subject Table. In addition, the reference to the MFIVs was deleted. PI design does not provide the Table 3.3.2-1 Function 5, "Feedwater Isolation" signal to the MFIVs. The MFIVs do receive a Containment Isolation signal which is contained in Function 2. The originally bracketed information, "and associated bypass valves" was revised by deleting the word "associated" and adding the abbreviation "MFRV". Inserting the abbreviation "MFRV" before "bypass" provides additional clarification, eliminates potential confusion, and accurately describes which bypass valves are being referenced. The bracketed word "de-activated" was been deleted. PI does not use the terminology of "de-activated" for this specific application of the MFRVs or the MFRV Bypass Valves. Rather, PI operating practice is to place the MFRVs and MFRV Bypass Valves in manual control. PI interprets placing the MFRVs and MFRV Bypass Valves in manual control equivalent to what the NUREG references as de-activating them. Placing the Valves in manual control requires distinctive human action to operate

	Cat.	No. 3.3-	Justification for Difference
3.3.2-27	CL	273	(continued)

them which would be controlled under plant administrative procedures. The bracketed statement, "or isolated by a closed manual valve" has been revised stating, "or isolated by a closed non-automatic valve." In this statement, the word "manual" has been replaced with "non-automatic". PI considers motor operated valves (MOVs) that do not receive an automatic initiation signal as "non-automatic" valves. Since an MOV without automatic signal requires operator action, these are functionally equivalent to manual valves. In order to make the Footnote apply to PI, in literal compliance, this change is necessary. The revised Footnote, as it appears in the ITS, provides adequate assurance that the subject valves remain closed which is consistent with NUREG-1431.

Prairie Island Nuclear Generating Plant

Attachment 2

to

Supplement dated December 12, 2001
to License Amendment Request dated January 25, 2002
Conversion to Improved Technical Specifications (ITS)

Page List by RAI Q

RAI Q #	Package #	Part	Page #
3.3.2-02	3.3	C	61 of 72
3.3.2-04	3.3	C	35 of 72
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3.3.2-04	3.3	G	1
3.3.2-06	3.3	D	24
3.3.2-06	3.3	D	24
3.3.2-06	3.3	G	24
3.3.2-06	3.3	G	25
3.3.2-06	3.3	G	26
3.3.2-06	3.3	G	27
3.3.2-11	3.1	XRC	Table 7
3.3.2-11	3.2	XRC	Table 7
3.3.2-11	3.3	B	3.3.2-5
3.3.2-11	3.3	B	3.3.2-6
3.3.2-11	3.3	B	B 3.3.2-36
3.3.2-11	3.3	B	B 3.3.2-37
3.3.2-11	3.3	C	35 of 72
3.3.2-11	3.3	C	37 of 72
3.3.2-11	3.3	D	30
3.3.2-11	3.3	E	3.3.2-7
3.3.2-11	3.3	E	3.3.2-8
3.3.2-11	3.3	E	B 3.3.2-71
3.3.2-11	3.3	E	B 3.3.2-72
3.3.2-11	3.3	F	22
3.3.2-11	3.3	F	23
3.3.2-11	3.3	XRC	Table 7
3.3.2-11	3.3	XRI	3.3-13
3.3.2-11	3.4	XRC	Table 7
3.3.2-11	3.5	XRC	Table 7
3.3.2-11	3.6	XRC	Table 7
3.3.2-11	3.7	XRC	Table 7
3.3.2-11	3.9	XRC	Table 7
3.3.2-11	5.0	XRC	Table 7
3.3.2-13	3.3	D	49
3.3.2-15	3.3	B	B 3.3.1-2
3.3.2-15	3.3	E	B 3.3.1-2
3.3.2-25	3.3	F	32
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RAI Q #	Package #	Part	Page #
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E18	3.6	B	B 3.6.3-2
E18	3.6	B	B 3.6.3-3
E18	3.6	B	B 3.6.3-4
E18	3.6	B	B 3.6.3-7
E18	3.6	B	B 3.6.3-9
E18	3.6	B	B 3.6.3-11
E18	3.6	B	B 3.6.3-13
E18	3.6	B	B 3.6.10-4
E18	3.6	C	10 of 24
E18	3.6	C	19 of 24
E18	3.6	D	2
E18	3.6	D	4
E18	3.6	D	27
E18	3.6	D	28
E18	3.6	D	29
E18	3.6	D	30
E18	3.6	E	3.6.1-2
E18	3.6	E	3.6.1-3
E18	3.6	E	3.6.2-4
E18	3.6	E	3.6.3-6
E18	3.6	E	3.6.3-9
E18	3.6	E	B 3.6.1-7
E18	3.6	E	B 3.6.3-3
E18	3.6	E	B 3.6.3-4
E18	3.6	E	B 3.6.3-5
E18	3.6	E	B 3.6.3-9
E18	3.6	E	B 3.6.3-11
E18	3.6	E	B 3.6.3-13
E18	3.6	E	B 3.6.3-16
E18	3.6	E	B 3.6.10-5
E18	3.6	F	2
E18	3.6	F	3
E18	3.6	G	5
E18	3.6	XRC	3.6-3
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RAI Q #	Package #	Part	Page #
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E19	5.0	C	16 of 41
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E19	5.0	E	5.0-6
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Repagination	3.3	B	3.3.2-7
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Repagination	3.3	B	B 3.3.2-41
Repagination	3.3	B	B 3.3.2-42
Repagination	3.3	E	B 3.3.2-73
Repagination	3.6	B	3.6.3-7
Repagination	3.6	B	B 3.6.1-5
Repagination	3.6	B	B 3.6.3-5
Repagination	3.6	B	B 3.6.3-6
Repagination	3.6	B	B 3.6.3-8
Repagination	3.6	B	B 3.6.3-10
Repagination	3.6	B	B 3.6.3-12
Repagination	3.6	B	B 3.6.3-14
Repagination	3.6	B	B 3.6.3-15
Repagination	3.6	B	B 3.6.3-16
Repagination	3.6	B	B 3.6.3-17
Repagination	3.6	B	B 3.6.3-18
Repagination	3.6	E	B 3.6.3-6
Repagination	3.6	E	B 3.6.3-7
Repagination	3.6	E	B 3.6.3-8
Repagination	3.6	E	B 3.6.3-10
Repagination	3.6	E	B 3.6.3-12
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Repagination	3.6	E	B 3.6.3-15
Repagination	3.6	E	B 3.6.3-17
Repagination	3.6	E	B 3.6.3-18
Repagination	3.6	E	B 3.6.3-19
Repagination	3.6	E	B 3.6.3-20
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RAI Q #	Package #	Part	Page #
Repagination	3.6	E	B 3.6.3-22
Repagination	3.6	E	B 3.6.3-23
Repagination	3.6	E	B 3.6.3-24
Repagination	3.6	E	B 3.6.3-25
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Repagination	3.6	E	B 3.6.3-27
Repagination	3.6	XRI	3.6-2
Repagination	3.6	XRI	3.6-3
Repagination	3.6	XRI	3.6-4
Repagination	3.6	XRI	3.6-5

Prairie Island Nuclear Generating Plant

Attachment 3

to

Supplement dated December 12, 2001
to License Amendment Request dated January 25, 2002
Conversion to Improved Technical Specifications (ITS)

Revision 6 Change Pages

Improved Technical Specifications
Supplement dated 1/25/02
Revision 6 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
3.1	XRC	Table - 7	12/11/00	3.1	XRC	Table - 7	12/1/01
3.2	XRC	Table - 7	12/11/00	3.2	XRC	Table - 7	12/1/01
3.3	B	3.3.2-5	12/11/00	3.3	B	3.3.2-5	12/1/01
	B	3.3.2-6	12/11/00		B	3.3.2-6	12/1/01
	B	3.3.2-7	12/11/00		B	3.3.2-7	Repaginated
	B	B 3.3.1-2	12/11/00		B	B 3.3.1-2	12/1/01
	B	B 3.3.2-36	12/11/00		B	B 3.3.2-36	12/1/01
	B	B 3.3.2-37	12/11/00		B	B 3.3.2-37	12/1/01
	B	B 3.3.2-38	12/11/00		B	B 3.3.2-38	Repaginated
	B	B 3.3.2-39	12/11/00		B	B 3.3.2-39	Repaginated
	B	B 3.3.2-40	12/11/00		B	B 3.3.2-40	Repaginated
	B	B 3.3.2-41	12/11/00		B	B 3.3.2-41	Repaginated
	B	---	---		B	B 3.3.2-42	12/11/00
	C	35 of 72			C	35 of 72	6
	C	37 of 72			C	37 of 72	6
	C	61 of 72			C	61 of 72	6
	D	24	12/11/00		D	24	12/1/01
	D	30	12/11/00		D	30	12/1/01
	D	31	12/11/00		D	31	12/11/00
	D	32	12/11/00		D	32	12/11/00
	D	33	12/11/00		D	33	12/11/00
	D	34	12/11/00		D	34	12/11/00
	D	35	9/4/01		D	35	12/11/00
	D	36	9/4/01		D	36	9/4/01
	D	37	9/4/01		D	37	9/4/01
	D	38	9/4/01		D	38	9/4/01

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UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
	D	39	9/4/01		D	39	9/4/01
	D	40	12/11/00		D	40	9/4/01
	D	41	9/4/01		D	41	12/11/00
	D	42	9/4/01		D	42	9/4/01
	D	43	9/4/01		D	43	9/4/01
	D	44	9/4/01		D	44	9/4/01
	D	45	9/4/01		D	45	9/4/01
	D	46	12/11/00		D	46	9/4/01
	D	47	9/4/01		D	47	12/11/00
	D	48	9/4/01		D	48	9/4/01
	D	49	9/4/01		D	49	12/1/01
	D	50	12/11/00		D	50	9/4/01
	D	51	12/11/00		D	51	12/11/00
	D	52	12/11/00		D	52	12/11/00
	D	53	12/11/00		D	53	12/11/00
	D	54	9/4/01		D	54	12/11/00
	D	55	9/4/01		D	55	9/4/01
	D	56	9/4/01		D	56	9/4/01
	D	57	9/4/01		D	57	9/4/01
	D	58	9/4/01		D	58	9/4/01
	D	59	9/4/01		D	59	9/4/01
	D	60	9/4/01		D	60	9/4/01
	D	61	9/4/01		D	61	9/4/01
	D	---	---		D	62	9/4/01
	D	---	---		D	63	12/1/01
	E	3.3.2-7			E	3.3.2-7	6
	E	3.3.2-8			E	3.3.2-8	6
	E	B 3.3.1-2			E	B 3.3.1-2	6
	E	B 3.3.1-71			E	B 3.3.2-71	6
	E	B 3.3.1-72			E	B 3.3.2-72	6

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UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
	E	B 3.3.1-73			E	B 3.3.2-73	Repaginated
	F	22	12/11/00		F	22	12/1/01
	F	23	12/11/00		F	23	12/1/01
	F	32	12/11/00		F	32	12/1/01
	G	1	9/4/01		G	1	12/1/01
	G	24	12/11/00		G	24	12/1/01
	G	25	12/11/00		G	25	12/1/01
	G	26	12/11/00		G	26	12/1/01
	G	27	12/11/00		G	27	12/1/01
	XRC	Table-7	12/11/00		XRC	Table-7	12/1/01
	XRI	3.3-13	12/11/00		XRI	3.3-13	12/1/01
3.4	XRC	Table-7	12/11/00	3.4	XRC	Table-7	12/1/01
3.5	XRC	Table-7	12/11/00	3.5	XRC	Table-7	12/1/01
3.6	B	3.6.1-2	5/1/01	3.6	B	3.6.1-2	12/1/01
	B	3.6.3-5	5/1/01		B	3.6.3-5	12/1/01
	B	3.6.3-6	5/1/01		B	3.6.3-6	12/1/01
	B	3.6.3-7	5/1/01		B	3.6.3-7	Repaginated
	B	B 3.6.1-5	5/1/01		B	B 3.6.1-5	Repaginated
	B	---	---		B	B 3.6.1-6	12/1/01
	B	B 3.6.3-2	12/11/00		B	B 3.6.3-2	12/1/01
	B	B 3.6.3-3	5/1/01		B	B 3.6.3-3	12/1/01
	B	B 3.6.3-4	12/11/00		B	B 3.6.3-4	12/1/01
	B	B 3.6.3-5	12/11/00		B	B 3.6.3-5	Repaginated

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UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
	B	B 3.6.3-6	5/1/01		B	B 3.6.3-6	Repaginated
	B	B 3.6.3-7	12/11/00		B	B 3.6.3-7	12/1/01
	B	B 3.6.3-8	5/1/01		B	B 3.6.3-8	12/11/00
	B	B 3.6.3-9	5/1/01		B	B 3.6.3-9	12/1/01
	B	B 3.6.3-10	5/1/01		B	B 3.6.3-10	Repaginated
	B	B 3.6.3-11	5/1/01		B	B 3.6.3-11	12/1/01
	B	B 3.6.3-12	5/1/01		B	B 3.6.3-12	Repaginated
	B	B 3.6.3-13	5/1/01		B	B 3.6.3-13	12/1/01
	B	B 3.6.3-14	5/1/01		B	B 3.6.3-14	Repaginated
	B	B 3.6.3-15	5/1/01		B	B 3.6.3-15	Repaginated
	B	B 3.6.3-16	12/11/00		B	B 3.6.3-16	5/1/01
	B	B 3.6.3-17	5/1/01		B	B 3.6.3-17	12/11/00
	B	---	---		B	B 3.6.3-18	5/1/01
	B	B 3.6.10-4	5/1/01		B	B 3.6.10-4	12/1/01
	C	10 of 24	2		C	10 of 24	6
	C	19 of 24	2		C	19 of 24	6
	D	2	5/1/01		D	2	12/1/01
	D	4	5/1/01		D	4	12/1/01
	D	27	5/1/01		D	27	12/1/01
	D	28	5/1/01		D	28	12/1/01
	D	29	5/1/01		D	29	12/1/01
	D	30	5/1/01		D	30	12/1/01
	E	3.6.1-2	2		E	3.6.1-2	6
	E	3.6.1-3			E	3.6.1-3	6
	E	3.6.2-4			E	3.6.2-4	6
	E	3.6.3-6	2		E	3.6.3-6	6
	E	3.6.3-9			E	3.6.3-9	6

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UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
	E	B 3.6.1-7	2		E	B 3.6.1-7	6
	E	B 3.6.3-3	2		E	B 3.6.3-3	6
	E	B 3.6.3-4			E	B 3.6.3-4	6
	E	B 3.6.3-5			E	B 3.6.3-5	6
	E	B 3.6.3-6			E	B 3.6.3-6	Repaginated
	E	B 3.6.3-7			E	B 3.6.3-7	Repaginated
	E	B 3.6.3-8	2		E	B 3.6.3-8	Repaginated
	E	B 3.6.3-9	2		E	B 3.6.3-9	6
	E	B 3.6.3-10			E	B 3.6.3-10	Repaginated
	E	B 3.6.3-11	2		E	B 3.6.3-11	6
	E	B 3.6.3-12	2		E	B 3.6.3-12	Repaginated
	E	B 3.6.3-13	2		E	B 3.6.3-13	6
	E	B 3.6.3-14	2		E	B 3.6.3-14	Repaginated
	E	B 3.6.3-15	2		E	B 3.6.3-15	Repaginated
	E	B 3.6.3-16	2		E	B 3.6.3-16	6
	E	B 3.6.3-17			E	B 3.6.3-17	Repaginated
	E	B 3.6.3-18	2		E	B 3.6.3-18	Repaginated
	E	B 3.6.3-19			E	B 3.6.3-19	2
	E	B 3.6.3-20	2		E	B 3.6.3-20	Repaginated
	E	B 3.6.3-21	2		E	B 3.6.3-21	Repaginated
	E	B 3.6.3-22			E	B 3.6.3-22	2
	E	B 3.6.3-23			E	B 3.6.3-23	Repaginated
	E	B 3.6.3-24			E	B 3.6.3-24	Repaginated
	E	B 3.6.3-25	2		E	B 3.6.3-25	Repaginated
	E	B 3.6.3-26			E	B 3.6.3-26	2
	E	---	---		E	B 3.6.3-27	Repaginated
	E	B 3.6.10-5	2		E	B 3.6.10-5	6
	F	2	5/1/01		F	2	12/1/01
	F	3	5/1/01		F	3	12/1/01

Revision 6 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
	G	5	5/1/01		G	5	12/1/01
	XRC	3.6-3	5/1/01		XRC	3.6-3	12/1/01
	XRC	4.4-3	5/1/01		XRC	4.4-3	12/1/01
	XRC	Table-7	12/11/00		XRC	Table-7	12/1/01
	XRI	3.6-1	5/1/01		XRI	3.6-1	12/1/01
	XRI	3.6-2	5/1/01		XRI	3.6-2	Repaginated
	XRI	3.6-3	5/1/01		XRI	3.6-3	Repaginated
	XRI	3.6-4	5/1/01		XRI	3.6-4	Repaginated
	XRI	3.6-5	5/1/01		XRI	3.6-5	Repaginated
	XRC	Table-7	12/11/00	3.7	XRC	Table-7	12/1/01
3.9	XRC	Table-7	12/11/00	3.9	XRC	Table-7	12/1/01
5.0	B	5.0-4	12/11/00	5.0	B	5.0-4	12/1/01
	C	16 of 41			C	16 of 41	6
	D	---	---		D	11	12/1/01
	E	5.0-6			E	5.0-6	6
	F	7	5/1/01		F	7	12/1/01
	G	3	12/11/00		G	3	12/1/01
	XRC	Table-7	12/11/00		XRC	Table-7	12/1/01

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H. One or both channel(s) inoperable on one bus.	-----------------NOTE---------------- One inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. --	
	H.1 Place channel(s) in trip.	6 hours
	<u>OR</u>	
	H.2 Be in MODE 3.	12 hours
I. One train inoperable.	-----------------NOTE---------------- One train may be bypassed for up to 8 hours for surveillance testing provided the other train is OPERABLE. ----------------------------------	
	I.1 Initiate action to enter applicable Condition(s) and Required Action(s) of Specification 3.7.5 for the associated Auxiliary Feedwater (AFW) train.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
J. One channel inoperable.	J.1 Initiate action to enter applicable Condition(s) and Required Action(s) of Specification 3.7.5 for the associated Auxiliary Feedwater (AFW) train.	Immediately

SURVEILLANCE REQUIREMENTS

-----NOTE-----
Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

SURVEILLANCE	FREQUENCY
SR 3.3.2.1 Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2 Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3 Perform COT.	92 days

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.3.2.4	-----NOTE----- Verification of setpoint not required. ---------- Perform TADOT.	24 months
SR 3.3.2.5	-----NOTE----- Verification of setpoint not required. ---------- Perform TADOT.	24 months on a STAGGERED TEST BASIS
SR 3.3.2.6	-----NOTE----- This Surveillance shall include verification that the time constants are adjusted to the prescribed values. ---------- Perform CHANNEL CALIBRATION.	24 months

BASES

BACKGROUND (continued)

reaching the analytical limit and thus ensuring that the SL would not be exceeded. As such, the trip setpoint accounts for uncertainties in setting the device (e.g., calibration), uncertainties in how the device might actually perform (e.g., repeatability), changes in the point of action of the device over time (e.g., drift during surveillance intervals), and any other factors which may influence its actual performance (e.g., harsh accident environments). In this manner, the trip setpoint plays an important role in ensuring that SLs are not exceeded. As such, the trip setpoint meets the definition of an LSSS (Ref. 2) and could be used to meet the requirement that they be contained in the technical specifications.

Technical specifications contain values related to the OPERABILITY of equipment required for safe operation of the facility. OPERABLE is defined in technical specifications as "... being capable of performing its safety function(s)." For automatic protective devices, the required safety function is to ensure that a SL is not exceeded and therefore the LSSS as defined by 10CFR50.36 is the same as the OPERABILITY limit for these devices. However, use of the trip setpoint to define OPERABILITY in technical specifications and its corresponding designation as the LSSS required by 10CFR50.36 would be an overly restrictive requirement if it were applied as an OPERABILITY limit for the "as-found" value of a protective device setting during a surveillance. This would result in technical specification compliance problems, as well as reports and corrective actions required by the rule which are necessary to ensure safety. For example, an automatic protective device with a setting that has been found to be different from the trip setpoint due to some drift of the setting may still be OPERABLE since drift is to be expected. This expected drift would have been specifically accounted for in the setpoint methodology for calculating the trip setpoint and thus the automatic protective action would still have ensured that the SL would not be exceeded with the "as-found" setting of the protective device. Therefore, the device would still be OPERABLE since it would have performed its safety

BASES

ACTIONS

H.1 and H.2 (continued)

in the tripped condition. If placed in the tripped condition, the Function is then in a partial trip condition where one-out-of-two channels on the other bus will result in actuation. The 6 hour Completion Time is justified in Reference 5. Failure to restore the inoperable channel(s) to OPERABLE status or place it in the tripped condition within 6 hours requires the unit to be placed in MODE 3 within the following 6 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the bypassed condition for testing, are justified in Reference 5.

I.1 and J.1

Conditions I and J apply to the AFW automatic actuation relay logic function and to the AFW pump start on trip of both MFW pumps function.

The OPERABILITY of the AFW System must be assured by allowing automatic start of the AFW System pumps. If a logic train or channel is inoperable, the applicable Condition(s) and Required Action(s) of LCO 3.7.5, "Auxiliary Feedwater (AFW) System," are entered for the associated AFW Train.

BASES (continued)

ACTIONS

I.1 and J.1 (continued)

Required Action I.1 is modified by a note that allows placing a train in the bypass condition for up to 8 hours for surveillance testing provided the other train is OPERABLE. This is necessary to allow testing reactor trip system logic which is in the same cabinet with AFW logic. This is acceptable since the other AFW system train is OPERABLE and the probability for an event requiring AFW during this time is low.

SURVEILLANCE REQUIREMENTS

The SRs for each ESFAS Function are identified by the SRs column of Table 3.3.2-1.

A Note has been added to the SR Table to clarify that Table 3.3.2-1 determines which SRs apply to which ESFAS Functions.

Note that each channel of reactor protection analog system supplies both trains of the ESFAS. When testing Channel I, Train A and Train B must be examined. Similarly, Train A and Train B must be examined when testing Channel II, Channel III, and Channel IV (if applicable). The CHANNEL CALIBRATION and COTs are performed in a manner that is consistent with the assumptions used in analytically calculating the required channel accuracies.

SR 3.3.2.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.1 (continued)

Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and reliability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.2.2

SR 3.3.2.2 is the performance of an ACTUATION LOGIC TEST. The ESF relay logic is tested every 31 days on a STAGGERED TEST BASIS. The train being tested is placed in the test condition, thus preventing inadvertent actuation. All possible logic combinations are tested for each ESFAS function. The test includes actuation of master and slave relays whose contact outputs remain within the relay logic. The test condition inhibits actuation of the master and slave relays whose contact outputs provide direct ESF equipment actuation. Where the relays are not actuated, the test

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.2 (continued)

circuitry provides a continuity check of the relay coil. This verifies that the logic is OPERABLE and that there is a signal path to the output relay coils. The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

SR 3.3.2.3

SR 3.3.2.3 is the performance of a COT.

A COT is performed on each required channel to ensure the entire channel will perform the intended Function. Setpoints must be found within the Allowable Values specified in Table 3.3.2-1. A successful test of the required contact(s) of a channel (logic input) relay may be performed by the verification of the change of state of a single contact of the relay. This clarifies what is an acceptable CHANNEL OPERATIONAL TEST of a relay. This is acceptable because all of the other required contacts of the relay are verified by other Technical Specifications and non-Technical Specifications tests at least once per refueling interval with applicable extensions.

The difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology. The setpoint shall be left set consistent with the assumptions of the current unit specific setpoint methodology.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.3 (continued)

The "as found" and "as left" values must also be recorded and reviewed for consistency with the assumptions of the surveillance interval extension analysis (Ref. 5) when applicable.

The Frequency of 92 days is justified in Reference 5.

SR 3.3.2.4

SR 3.3.2.4 is the performance of a TADOT. This SR is a check of the following ESFAS Instrumentation Functions:

1. CS Manual Initiation;
2. CI Manual Initiation;
3. AFW pump start on Undervoltage on Buses 11 and 12 (21 and 22); and
4. AFW pump start on trip of both MFW pumps.

This SR is performed every 24 months. A successful test of the required contact(s) of a channel (logic input) relay may be performed by the verification of the change of state of a single contact of the relay. This clarifies what is an acceptable TADOT of a relay. This is acceptable because all of the other required contacts of the relay are verified by other Technical Specifications and non-Technical Specifications tests at least once per refueling interval with applicable extensions. The Frequency is adequate, based on industry operating experience and is consistent with the typical refueling cycle. The SR is modified by a Note that excludes

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.4 (continued)

verification of setpoints during the TADOT. The Functions, except the undervoltage start of the AFW pumps, have no associated setpoints. For the undervoltage start of the AFW pumps, setpoint verification is covered by other SRs.

SR 3.3.2.5

This SR is the performance of a TADOT to check the Safety Injection Manual Initiation Function. It is performed every 24 months on a STAGGERED TEST BASIS. The Frequency is adequate, based on industry operating experience and is consistent with a typical refueling cycle.

The SR is modified by a Note that excludes verification of setpoints during the TADOT. The manual initiation Function has no associated setpoints.

SR 3.3.2.6

SR 3.3.2.6 is the performance of a CHANNEL CALIBRATION.

A CHANNEL CALIBRATION is performed every 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to measured parameter within the necessary range and accuracy.

CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the unit specific setpoint methodology. The

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.6 (continued)

difference between the current "as found" values and the previous test "as left" values must be consistent with the drift allowance used in the setpoint methodology.

The Frequency of 24 months is based on the assumption of a 24 month calibration interval in the determination of the magnitude of equipment drift in the setpoint methodology.

This SR is modified by a Note stating that this test should include verification that the time constants are adjusted to the prescribed values where applicable.

REFERENCES

1. AEC "General Design Criteria for Nuclear Power Plant Construction Permits," Criterion 15, issued for comment July 10, 1967, as referenced in USAR Section 1.2.
2. USAR, Section 7.
3. USAR, Section 14.
4. "Engineering Manual Section 3.3.4.1,Engineering Design Standard for Instrument Setpoint/Uncertainty Calculations".
5. WCAP-10271-P-A, Supplement 2, Rev. 1, June 1990.

TABLE 3.5-2B (Page 8 of 9)

Action Statements

ACTION 25: With ~~the number of OPERABLE channels~~ one train inoperable ~~less than the Total Number of Channels~~, restore the inoperable channel to OPERABLE status within 6 hours or be in at least MODE 3 ~~HOT SHUTDOWN~~ within 12~~the next 6~~ hours. Operation in MODE 3 ~~HOT SHUTDOWN~~ may proceed provided the main steam isolation valves are closed, or ~~if not~~, be in at least MODE 4 ~~INTERMEDIATE SHUTDOWN~~ within 18~~the following 6~~ hours. However, one channel may be bypassed for up to 8 hours for surveillance testing per Specification 4.1, provided the other channel is OPERABLE.

LCO3.3.2 Cond F

A3.3-18

A3.3-21

A3.3-29

A3.3-142

R-6

ACTION 26: With ~~the number of OPERABLE channels~~ one channel inoperable ~~less than the Total Number of Channels~~, declare the associated auxiliary feedwater pump inoperable and take the action required by specification 3.4.2.

LCO3.3.2 Cond J

A3.3-18

R-6

ACTION 27: With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 6 hours and close the associated valve.

Addressed Elsewhere

~~TABLE TS.3.5-2B~~
~~Page 8 of 9~~
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Action Statements

ACTION 30: With one the number of OPERABLE train channels inoperable one less than the Total Number of Channels, declare the associated auxiliary feedwater pump train inoperable and take the action required by Specification 3.4.2. However, one train channel may be bypassed for up to 8 hours for surveillance testing per Specification 4.1, provided the other channel is OPERABLE.

LCO3.3.2 Cond I

A3.3-18

A3.3-55

R-6

ACTION 31: With one or more Functions with the number of OPERABLE channels one channel per bus inoperable less than the Total Number of Channels, operation in the applicable MODE may proceed provided the inoperable channel is placed in the bypassed condition within 6 hours.

LCO3.3.4 Cond A

A3.3-18

ACTION 32: With the number of OPERABLE channels two less than the Total Number of Channels, operation in the applicable MODE may proceed provided the following conditions are satisfied:

A3.3-56

a. One inoperable channel is placed in the bypassed condition within 6 hours, and,

b. The other inoperable channel is placed in the tripped condition within 6 hours, and,

c. All of the channels associated with the redundant 4kV Safeguards Bus are OPERABLE.

TABLE TS.3.5-2B
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TABLE TS.4.1-1B (Page 4 of 7)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

A3.3-72

	FUNCTIONAL UNIT	CHECK	CALIBRATE	FUNCTIONAL TEST	RESPONSE TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED	
	56. FEEDWATER ISOLATION						
Table 3.3.2-1 Func 5b	ba. Hi-Hi Steam Generator Level	S SR3.3.2.1	R(27) SR3.3.2.6	Q SR3.3.2.3	N.A.	1, 2(29)	L3.3-45 R-6
Table 3.3.2-1 Func 5c	cb. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements					
	c. Reactor Trip with 2 of 4 Low T_{avg} (Main Valves Only)						
	1. Reactor Trip	N.A.	N.A.	R	N.A.	1, 2	LR3.3-44
	2. Low T_{avg}	S	R	Q	N.A.	1, 2	
Table 3.3.2-1 Func 5a	ad. Automatic Actuation Relay Logic and Actuation Relays	N.A.	N.A.	M(22) SR3.3.2.2	N.A.	1, 2(29), 3(29)	M3.3-106 A3.3-35

TABLE TS.4.1-1B (Page 4 of 7) REV 111 8/10/94

NSHD category	Change number 3.3-	Discussion of Change
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.
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 and the probability of an event in MODE 4 requiring SI on high containment pressure is low due to the reduced reactor coolant system temperature and pressure. If an event were to occur in MODE 4, it would progress slow enough due to the reduced reactor coolant system temperature and pressure to allow manual SI initiation and assure acceptable mitigation of the events causing high containment pressure. The manual initiation and logic functions are required to be OPERABLE in MODE 4. Thus automatic initiation of SI on high containment pressure in MODE 4 is unnecessary.
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 the containment design pressure; thus automatic initiation of containment spray on high containment pressure in MODE 4 is unnecessary.

NSHD category	Change number 3.3-	Discussion of Change
A	055	Table 3.5-2B, Action 30. CTS requires declaring the affected auxiliary feedwater (AFW) pump inoperable when one channel of AFW logic is inoperable. The CTS provision for a channel inoperable has been replaced with a provision for a train to be inoperable. This change is an administrative change since the AFW logic is a collection of relays for which the term "train" is more appropriate than "channel"; this changed terminology does not involve any more or less equipment. and this change does not involve any changes in plant operations. The CTS requirement to declare an AFW pump inoperable has been replaced in the ITS with a requirement to declare an AFW train inoperable. Since both trains of AFW have a single AFW pump and the train is inoperable if the pump is inoperable, declaring an AFW pump inoperable is equivalent to declaring an AFW train inoperable. Therefore, this change is also an administrative change.
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.

NSHD category	Change number 3.3-	Discussion of Change
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 introduce any new safety concerns.
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.

NSHD category	Change number 3.3-	Discussion of Change
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.
M	60	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 within 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.

NSHD category	Change number 3.3-	Discussion of Change
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.
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.

NSHD category	Change number 3.3-	Discussion of Change
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.
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	68	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.

NSHD category	Change number 3.3-	Discussion of Change
A	69	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.

NSHD category	Change number 3.3-	Discussion of Change
M	073	Table 4.1-1A, Functions 2b, 5, 6a. CTS requires a COT to be performed prior to reactor startup for power range, neutron flux-low, intermediate range and source range (Mode 2 below P-6) instrumentation. ITS will also 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 4 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. Verification that P-6 and P-10 are in their required state is more appropriate for these Functions (2b, 5 and 6a) than CTS (Function 6b) since Modes 1 and 2 are the Modes during which these interlocks perform their function. This change is consistent with the guidance of NUREG-1431.

NSHD category	Change number 3.3-	Discussion of Change
L	074	Table 4.1-1A, Function 5. CTS requires a Response Time Test on the Intermediate Range Neutron Flux Instrumentation (IRNFI) each refueling outage. 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. Response Time Testing for the IRNFI does not meet the Technical Specification selection criteria of 10 CFR 50.36 per the following discussion. (1) Response Time Testing of IRNFI does not detect or indicate in the control room, significant abnormal degradation of the reactor coolant pressure boundary. (2) Response Time Testing of IRNFI is not a process variable, design feature or operating restriction that is an initial condition of an accident. (3) Response Time Testing of IRNFI is not a structure, system or component that is part of the primary success path in mitigation of an accident. The IRNFI is backup instrumentation which is not credited in the safety analyses to trip the reactor. The time at which this trip actuates is not important since this instrumentation is not assumed to trip the reactor or mitigate an accident. (4) Response Time Testing of IRNFI has not been shown to be significant to public health and safety. This is evidenced by the fact that Response Time Testing of IRNFI is not included in NUREG-1431, the Improved Standard Technical Specifications for Westinghouse plants. Since Response Time Testing of IRNFI does not meet the four criteria in 10 CFR 50.36, this test is not included in the Prairie Island ITS. This change may require less testing; therefore, this is a less restrictive change.

NSHD category	Change number 3.3-	Discussion of Change
A	075	Table 4.1-1A, Functions 2a, 7 and 8. CTS requires monthly and quarterly calibration of the Power Range Neutron Flux - High Setpoint (M(6,7), Q(7,8)). The surveillances currently performed in accordance with these CTS requirements are the same surveillances required by ISTS SRs 3.3.1.3 and 3.3.1.6. These surveillances calibrate the power range instrumentation inputs to the axial off-set function f(ΔI). Since the axial off-set function provides an input into the Overtemperature ΔT Function, NUREG-1431 lists SRs 3.3.1.3 and 3.3.1.6 as part of the Overtemperature ΔT Function required surveillances. Since the NUREG-1431 presentation of these SRs is more technically correct and to be consistent with NUREG-1431, the Prairie Island ITS does not require these surveillances to be performed on the Power Range Neutron Flux - High Setpoint instrumentation, but instead requires them to be performed on the Overtemperature ΔT Function. This is simply a change in the presentation of requirements and does not involve any change in instrumentation testing; therefore this is an administrative change. Prairie Island differs from NUREG-1431 in that the axial off-set function f(ΔI) is not set to zero for all values of ΔI in the Overpower ΔT Function. Since f(ΔI) provides input to the Overpower ΔT Function at Prairie Island, SRs 3.3.1.3 and 3.3.1.6 are also listed as required surveillances for the Overpower ΔT Function. This makes the ITS more technically accurate and consistent. This consistent presentation will also be less confusing to the operators. Since this change does not involve any changes to plant testing requirements, this is also an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
	076	Not used.
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. The CTS requires that the Turbine Stop Valve be calibrated every refueling outage. The Turbine Stop Valve design consists of the valve and various limit switches. Based on this design, the Turbine Stop Valve can only be verified fully open or closed. In accordance with current plant procedures, each refueling outage a reactor protection logic test is performed. The purpose of this test is to verify that an isolation signal is received, thus requiring the valve to fully close. The stroke distance or travel of this valve is controlled by a limit switch. If the valve fully closes then no adjustment "or calibration" is required. If the valve does not fully close, then the limit switch is adjusted accordingly. In addition, these valves do not have any partial stroke limits as is with other plants. Prairie Island Turbine Stop Valves are either fully open or closed. There is no physical means to perform an actual calibration of the limit switches, only adjustments. As result of converting to ITS, the definition of a true calibration is impossible as discussed above. Only a limit switch adjustment is possible. Ensuring that the valves are fully closed is important since any flow through them, when they are required to be closed, would have a direct impact on OPΔT and OTΔT. Therefore, since the subject valves can not be physically calibrated and only adjusted, the CTS requirement for calibrating these valves is deleted. This change is acceptable since the stop valve is either open or closed and therefore there is not any instrumentation which requires calibration.

NSHD category	Change number 3.3-	Discussion of Change
	78	Not used.
	79	Not used.
	80	Not used.
A	081	Table 4.1-1A, Functions 15, 16b. CTS requires a quarterly functional test of the 4 kV RCP Bus undervoltage and under frequency reactor trip relays The ITS requires a quarterly TADOT on Buses 11 and 12 (Unit 2: 21 and 22) which are the 4 kV RCP Buses. The ITS requirement for this test, SR 3.3.1.9, includes a Note which states "setpoint verification is not required". The relays in question have inherently stable setpoints and are fully calibrated each refueling outage in accordance with CTS and ITS requirements. The calibration data from January 1996 through June 2001 was reviewed for the 24 relays involved (12 for each unit). During this five and one-half year period, none of the relays were found to be set outside their calibration tolerances. The CTS definition of Channel Functional Test states, "A CHANNEL FUNCTIONAL TEST consists of injecting a simulated signal into the channel as close to the primary sensor as practicable to verify that it is OPERABLE, including alarm and/or trip initiating action." Unlike the definition for TADOT, the CTS definition for Channel Functional Test does not require setpoint verification; thus this note is simply a clarification and no substantive changes are involved. Therefore, this is an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
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.
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.

NSHD category	Change number 3.3-	Discussion of Change
A	084	Table 4.1-1A, Functions 18, 19. CTS requires response time testing of the automatic trip logic (Table 4.1-1A, Function 18) and the reactor trip breakers (Table 4.1-1A, Function 19). CTS also requires response time testing of other Reactor Trip System Functions. The manner in which these tests are performed at Prairie Island measures the time from input of the signal into the trip circuitry as near the sensing device as practicable until the opening of the reactor trip breaker. The times measured includes the time for the automatic trip logic to function and the time for the reactor trip breakers to function. Separate tests with individual measured times for these pieces of the circuitry are not performed. Since the automatic trip logic and the reactor trip breakers function time is included in the time recorded for the other Reactor Trip System required response time tests, the CTS requirement to perform response time testing of the automatic trip logic and reactor trip breakers is not included in the ITS. 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.
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.

NSHD category	Change number 3.3-	Discussion of 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. CTS Note 4 applies to the Intermediate Range, Source Range, and Turbine Trip Functions. The Turbine Trip Functions are discussed in DOC M3.3-87. Note 4 requires this SR to be performed prior to each startup following shutdown in excess of 2 days if not done in previous 30 days. This requirement has been revised to require this SR to be performed prior to each startup if not done in previous 92 days and every 92 days thereafter. A Note has been added not requiring the performance of this SR prior to reactor startup following shutdown ≤ 48 hours. This Note is discussed in DOC A3.3-141. Adding the requirement for performing this SR every 92 days thereafter is not required by the CTS and is therefore, a more restrictive change. Increasing the CTS SR Frequency from 30 days to 92 days is considered to be a less restrictive change. Since this change contains both a more and less restrictive change, its overall category is 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. Note 17 applies to the Power Range Instrumentation and requires this SR to be performed each startup if not done the previous week. This SR has been changed to be consistent with the NUREG by requiring this SR to be performed prior to startup if not done in the previous 92 days and every 92 days thereafter. Again, requiring this SR to be performed every 92 days thereafter is not required by the CTS and is therefore, a more restrictive

NSHD category	Change number 3.3-	Discussion of Change
L	86	(continued) change. Increasing the SR Frequency from weekly to 92 days is a less restrictive change. Increasing the Frequency to 92 days is acceptable since the subject instrumentation usually passes their SRs and they do not perform any mitigation function during an accident.
M	087	Table 4.1-1A, Note 4. CTS requires this surveillance when a unit is shutdown in excess of two days and the surveillance has not been performed in the previous 30 days. 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. With this change, the note will now require performance of the SR if the reactor goes to MODE 3 and if not performed in the previous 31 days. Since the note now requires performing the surveillance whenever the unit is shutdown (no 2 day allowance) and requires the SR to be performed prior to exceeding P-9, this is a more restrictive change. This change is acceptable since performance of this SR more frequently and prior to P-9 will not cause the plant to be operated in an unsafe manner.

NSHD category	Change number 3.3-	Discussion of Change
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 and every 31 EFPD. CTS does not require the SR to be performed within any specific time, thus this is a more restrictive change. The Frequency of once prior to exceeding 75% RTP following each refueling outage considers that the core, and therefore the neutron leakage characteristics, has been changed during a refueling outage such that the previous comparison is no longer valid. The Frequency also recognizes the importance of obtaining accurate excore NIS detector initial response data at high power level prior to NIS channel adjustment in accordance with SR 3.3.1.6. An initial performance at < 75% RTP provides a verification prior to attaining full power. 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. The 31 EFPD is based on unit operating experience, considering instrument reliability and operating history data for drift. In addition, the slow changes in neutron flux during the fuel cycle can be detected during this interval.
	89	Not used.
	90	Not used.

NSHD category	Change number 3.3-	Discussion of Change
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.
	093	Not used.
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.

NSHD category	Change number 3.3-	Discussion of 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.
	97	Not used.
	98	Not used.
	99	Not used.
	100	Not used.

NSHD category	Change number 3.3-	Discussion of Change
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 monitor only provides an alarm function in the control room and does not affect nor provide any trip functions for the monitor. Since this is only an alarm function, and does not provide any variables or mitigation functions, it does not meet any criteria for inclusion in the ITS and therefore, can be relocated to the TRM. 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.
	103	Not used.
	104	Not used.

NSHD category	Change number 3.3-	Discussion of Change
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 3.3.2.9) and current plant practices. This Note applies to ITS SR 3.3.1.10 and SR 3.3.2.6. 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.
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.
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.

NSHD category	Change number 3.3-	Discussion of Change
M	108	Table 4.1-1A, Note 16. A new requirement is included which requires the Reactor Trip Bypass Breaker to be tested prior to placing it 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.

NSHD category	Change number 3.3-	Discussion of 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.

NSHD category	Change number 3.3-	Discussion of Change
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.
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.
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 OTΔT and OPΔT functions. Since OTΔT and OPΔT 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 OTΔT and OPΔT perform a safety function. Since the SR is applicable in fewer modes, this is a less restrictive change.

NSHD category	Change number 3.3-	Discussion of 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.
	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.
	122	Not used.

NSHD category	Change number 3.3-	Discussion of Change
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.

NSHD category	Change number 3.3-	Discussion of Change
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.
LR	127	CTS 2.3.A.2.f. The specific details of where the RCS flow is measured has been relocated to the Bases. This change is consistent with the guidance of NUREG-1431 which does not specify the location of the flow measurement in the Specification. This detail is not necessary in the Specification and thus is relocated. Since the Bases is a licensee controlled document, this is a less restrictive change. This change is acceptable since the Bases remain under the regulatory controls of 10 CFR 50.59.
A	128	Table 3.5-2A, Function 17, 18 and 19. The CTS requires 2 channels to be OPERABLE for the SI input from ESF, Automatic Trip Logic and the Reactor Trip Breakers. To be consistent with the guidance of NUREG-1431, the ITS requires 2 trains of these Functions to be OPERABLE. Each of these Functions has two trains and the input to the RTS from each train can be considered a channel, thus, this is a change in terminology which is an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
L	129	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 this change limits the Mode of Applicability for the Intermediate Range Neutron Instrumentation (IRNRI), this is a less restrictive change. This change is acceptable since, in Mode 2 below P-6, the Source Range Neutron Instrumentation provides core protection for reactivity events and the IRNI does not need to be OPERABLE.
A	130	CTS 2.3A.2.d and 2.3.A.2.e. These CTS sections provide the equations and define the nomenclature for OTΔT and OPΔT respectively. The definitions of the nomenclature and the values for f(ΔI) have been marked up to be consistent with the presentation in NUREG-1431. This markup does not change any values of any parameters or change the meaning or use of any variables and does not change in any manner the plant operations. Since this change is only a markup which changes the presentation of the information and does not change any TS requirements or plant operation, this is an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
LR	131	CTS 2.3A.2.d. This section of CTS describes the function f(ΔI). This description is not included in ITS since this function is adequately discussed in the Bases for 3.3.1 Function 6, Note 1. Since this description is not included in ITS and is described in the ITS 3.3 Bases, this change is considered a less restrictive change, relocation.
L	132	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. These columns provide design information related to the plant which is not used in the ITS. The format of the ITS and the individual Action Statements within the ITS Conditions provide definition of the number of channels which may be inoperable or the number which are required to be OPERABLE. These ITS format changes make these columns unnecessary and thus these columns are not included. This change is acceptable since the format of ITS provides the same plant information based solely on the "Required Channels" for each instrumentation function. For most instrument functions, the same plant actions for the same instrument inoperabilities are required by ITS. Those instruments which have different instrument channel OPERABILITY requirements are addressed by separate discussions of change. Since this change requires less information in the ITS, this is a less restrictive change. This change is consistent with the guidance of NUREG-1431.

NSHD category	Change number 3.3-	Discussion of Change
A	133	CTS 2.3.A.2.g. CTS specifies RCP bus undervoltage as a percent of "normal voltage". ITS specifies RCP bus (Unit 1 buses 11 and 12; Unit 2 buses 21 and 22) as the percent of "bus voltage" in Table 3.3.1-1, Function 12 and Table 3.3.2-1, Function 6d. Both of these functions monitor the large motor buses, Bus 11 and 12 (Unit 2 Buses 21 and 22). This change is made to be consistent with the guidance of NUREG-1431, Table 3.3.2-1, Function 6d. This is an administrative change since both of these terms are understood as the nominal voltage, 4160 V, of these buses. This discussion of change addresses the change of terminology since L3.3-31 addresses the change from 75% to 76%.
A	134	CTS 2.3.A.3.a and 2.3.A.3.b The CTS limits for high pressurizer water level and low-low steam generator water level are specified as a percentage "of narrow range instrument span". ITS does not include the phrase "of narrow range instrument span" as a modifier of the limit. For the pressurizer, there is only narrow range instrumentation, therefore it is unnecessary to specify "narrow range instrument span". For the steam generator there is narrow range and wide range instrumentation. However, since only the narrow range instrumentation provides input to the reactor trip and engineered safety features systems, it is not possible to have confusion on which instrumentation is providing input and therefore unnecessary to specify "of narrow range instrument span". Since this change does not change plant operations, this is an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
L	135	Table 3.5-2A, New Action I. CTS does not provide any specific guidance for the condition when two source range neutron (SRN) flux channels are inoperable during the applicable Modes or other conditions of applicability. ITS provides a new action to address this condition when two source range neutron flux channels are inoperable. SRN instrumentation is required to be OPERABLE in MODES 3, 4, and 5 when the Control Rod Drive System is capable of rod withdrawal or one or more rods are not fully inserted. ITS Action I requires the Reactor Trip Breakers (RTBs) to be opened immediately. Since CTS does not provide any specific guidance for this condition, LCO 3.0.C would be entered which would allow one hour to evaluate and plan for plant shutdown, an additional 6 hours to be in MODE 3 and another 30 hours to be in MODE 5. If the plant is in MODE 3, 4, or 5 with the Control Rod Drive System capable of rod withdrawal or one or more rods are not fully inserted when both SRN instrumentation channels become inoperable, ITS requires the reactor trip breakers to be immediately opened which would immediately take the plant to MODE 3. In these MODES this is a less restrictive change since the ITS Required Action will allow the plant to remain in MODE 3 indefinitely while CTS would require shutdown to MODE 5. This action assures the plant is operated in a safe manner. This change is acceptable since the core is in a more stable condition when the plant is in MODE 3 with the RTBs open.

NSHD category	Change number 3.3-	Discussion of Change
L	136	Table 3.5-2A, Actions 5 and 8. CTS Table 3.5-2A, Actions 5 and 8 provide operability restrictions and Actions based on Reactor Trip System (RTS) breaker position and the capability of rod withdrawal by the rod control system. ITS LCO 3.3.1 Conditions C and J provide operability restrictions and Required Actions based on the verification of inserted rods and the capability of rod withdrawal by the rod control system. 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 alternative methods are provided since there are activities that may be necessary to perform (e.g., COTs on certain channels) which require the RTBs closed. This change is acceptable since the Applicability and Actions continue to assure the function and intent of opening the RTBs. These changes are consistent with the guidance of NUREG-1431 as modified by approved traveler, TSTF-135.
L	137	Table 3.5-2A, Action 2c. CTS requires a core quadrant power balance to be performed when a Power Range Neutron Flux channel (Functions 2a, 2b, 3 or 4) is inoperable and the THERMAL POWER is above 85%. ITS further limits this requirement to determine the core quadrant power balance when the Power Range Neutron Flux input to QPTR is inoperable. Since this change may require less determinations of core quadrant power balance, this is a less restrictive change. This change is acceptable since it is unnecessary to determine core quadrant power balance in accordance with SR 3.2.4.2 when the Power Range Neutron Flux input to QPTR is OPERABLE and there is no loss of function.

NSHD category	Change number 3.3-	Discussion of Change
L	138	CTS Table 4.1-1A, Function 6b. CTS requires quarterly verification in MODES 3, 4 and 5 that P-6 and P-10 are in their required state for existing plant conditions associated with a COT on the source range neutron flux (Modes 3, 4 and 5 with the reactor trip breakers closed and control rods capable of withdrawal) instrumentation . ITS requires verification that P-6 and P-10 are in their required state for existing plant conditions associated with the COT on power range, flux low, intermediate range and source range (MODE 2 below P-6). This change is consistent with the guidance of NUREG-1431. Since this change does not require verification of interlocks associated with the source range instrumentation in Modes 3, 4, and 5, this is a less restrictive change. This change is acceptable because these interlocks do not function in Modes 3, 4, and 5 and, per the requirements of ITS SR 3.3.1.8, the verification will be performed prior to or soon after entry into Modes 1 and 2 when the interlocks are required to perform their function. See M3.3-73.
A	139	Table 4.1-1A, Note 6. CTS requires, "Single point comparison . . ." of incore to excore nuclear instrumentation for axial off-set. ITS does not include this descriptive clause in the SR requirement statement. This method is discussed in detail in USAR Section 7.3.4.8. Since the USAR is under the regulatory controls of 10 CFR 50.59, changes in methodology are controlled and thus, this clause is unnecessary in the TS description. Since this change does not involve any changes in test requirements or methods for Prairie Island, this is an administrative change. This change is consistent with the guidance of NUREG-1431.
	140	Not used.

NSHD category	Change number 3.3-	Discussion of Change
A	141	CTS Table 4.1-1A, Table Notation 4. CTS requires a COT to be performed on intermediate and source range neutron instrumentation prior to reactor startup following each shutdown in excess of 2 days if not done in the previous 30 days. The exception for shutdown less than 2 days has been retained in ITS by rewording it as a Note in ITS SR 3.3.1.8 which states, "Not required to be performed for intermediate and source range instrumentation prior to reactor startup following shutdown ≤ 48 hours." This ITS exception has the same meaning and limitations as CTS, therefore this is an administrative change. This exception is important to Prairie Island because the COT on these instruments often is critical path during startup from a short shutdown. Since this exception Note applies to 6 channels of instrumentation which are in the same cabinet, performance of this SR may require 12 hours to perform. A typical day of one unit outage costs approximately $250,000 depending on the season, weather conditions and availability of other generating units on the Xcel Energy electrical system. Removal of the 2 day exception to perform this SR could be a significant hardship on Prairie Island operations typically costing $125,000 each occurrence. For example, as the answers to Section 3.3.1 RAIs were being written on August 2, 2001, Unit 1 was in the process of starting up from a unit trip. Due to hot, humid weather at the time, the cost of an outage was in excess of $250,000 per day. Thus, if the plant had to perform these SRs, a cost in excess of $125,000 could have been incurred. For these reasons, NMC has retained the 2 day exception as a Note in ITS SR 3.3.1.8.

NSHD category	Change number 3.3-	Discussion of Change
A	142	CTS Table 3.5-2B, Action 25. Action 25 requires an inoperable channel to be restored to OPERABLE status in 6 hours or be in MODE 3 in 12 hours. Continued operation in MODE 3 is permitted if the main steam isolation valves are closed or the plant must be in MODE 4 in 18 hours. ITS LCO 3.3.2 Condition F requires the inoperable train to be restored to OPERABLE status within 6 hours or the plant must be in MODE 3 in 12 hours and MODE 4 in 18 hours. However, the Applicable Mode or Other Specified Conditions for ITS Table 3.3.2-1 Function 4a is MODE 3 as modified by Note c. Note c exempts the plant from the operability requirements of Function 4a when the both main steam isolation valves (MSIVs) are closed. Thus, if the plant was unable to restore Function 4a to OPERABLE status within 6 hours, entry into MODE 3 would be required. Once the plant is in MODE 3, the plant could shut the MSIVs which would exit the plant from the Applicable Mode or Other Specified Conditions for Function 4a and operation in MODE 3 could continue, that is, further shutdown to MODE 4 in accordance with Condition F would not be required. Therefore, CTS Table 3.5-2B Action 25 and ITS 3.3.2 Condition F in conjunction with Table 3.3.2-1 Function 4a are functionally equivalent. Since there are no substantive changes this is considered an administrative change.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H~~J~~. One or both~~Main Feedwater Pumps trip~~ channel(s) inoperable on one bus.	------------NOTE------------ One inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ----------------------------	CL3.3-226
	H~~J~~.1 Place channel(s) in trip~~Restore channel to OPERABLE status~~.	6~~48~~ hours
	OR	
	H~~J~~.2 Be in MODE 3.	12~~54~~ hours
I~~K~~. One ~~channel~~train inoperable.	I~~K~~.1 --------NOTE--------- One ~~additional channel~~train may be bypassed for up to 8~~[4]~~ hours for surveillance testing provided the other train is OPERABLE. ---------------------	CL3.3-227
	Initiate action to enter applicable Condition(s) and Required Action(s) of Specification 3.7.5 for the associated Auxiliary Feedwater (AFW) train~~Place channel in bypass~~.	Immediately ~~6 hours~~
	~~OR~~	

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(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~K. (continued)~~	~~K.2.1 Be in MODE 3.~~	~~12 hours~~
	~~AND~~	
	~~K.2.2 Be in MODE 5.~~	~~42 hours~~
JL. One channel inoperable.	JL.1 Initiate action to enter applicable Condition(s) and Required Action(s) of Specification 3.7.5 for the associated Auxiliary Feedwater (AFW) train ~~Verify interlock is in required state for existing unit condition~~.	CL3.3-228 Immediately ~~1 hour~~
	~~OR~~	
	~~L.2.1 Be in MODE 3.~~	~~7 hours~~
	~~AND~~	
	~~L.2.2 Be in MODE 4.~~	~~13 hours~~

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BASES

therefore ensures that the SL is not exceeded. However, in practice, the actual settings for automatic protective devices must be chosen to be more conservative than the analytical limit to account for instrument loop uncertainties related to the setting at which the automatic protective action would actually occur. TA3.3-176

TA3.3-176

The trip setpoint is a predetermined setting for a protective device chosen to ensure automatic actuation prior to the process variable reaching the analytical limit and thus ensuring that the SL would not be exceeded. As such, the trip setpoint accounts for uncertainties in setting the device (e.g., calibration), uncertainties in how the device might actually perform (e.g., repeatability), changes in the point of action of the device over time (e.g., drift during surveillance intervals), and any other factors which may influence its actual performance (e.g., harsh accident environments). In this manner, the trip setpoint plays an important role in ensuring that SLs are not exceeded. As such, the trip setpoint meets the definition of an LSSS (Ref. 2) and could be used to meet the requirement that they be contained in the technical specifications. R-6

TA3.3-176

Technical specifications contain values related to the OPERABILITY of equipment required for safe operation of the facility. OPERABLE is defined in technical specifications as "... being capable of performing its safety function(s)." For automatic protective devices, the required safety function is to ensure that a SL is not exceeded and therefore the LSSS as defined by 10CFR50.36 is the same as the OPERABILITY limit for these devices. However, use of the trip setpoint to define OPERABILITY in technical specifications and its corresponding designation as the LSSS required by 10CFR50.36 would be an overly restrictive requirement if it were applied as an OPERABILITY limit for the "as-found" value of a protective device setting during a surveillance. This would result in technical specification

(continued)

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condition within 6 hours requires the unit to be placed in MODE 3 within the following 6 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, this Function is no longer required OPERABLE.

The Required Actions are modified by a Note that allows the inoperable channel to be bypassed for up to 4 hours for surveillance testing of other channels. The 6 hours allowed to place the inoperable channel in the tripped condition, and the 4 hours allowed for a second channel to be in the tripped condition for testing, are justified in Reference 5.

I.1 and J.1 ~~and J.2~~

Conditions I and J apply~~ies~~ to the AFW automatic actuation relay logic function and to the AFW pump start on trip of both~~all~~ MFW pumps function. CL3.3-227

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~~This action addresses the train orientation of the SSPS for the auto start function of the AFW System on loss of all MFW pumps.~~ The OPERABILITY of the AFW System must be assured by allowing automatic start of the AFW System pumps. If a logic train or channel is inoperable, ~~48 hours are allowed to return it to an OPERABLE status. If the function cannot be returned to an OPERABLE status, 6 hours are allowed to place the unit in MODE 3. The allowed Completion Time of 6 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging unit systems. In MODE 3, the unit does not have any analyzed transients or conditions that require the explicit use of the protection function noted above. The allowance of 48 hours to return the train to an OPERABLE status is~~ CL3.3-402

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(continued)

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justified in Reference 8. the applicable Condition(s) and Required Action(s) of LCO 3.7.5, "Auxiliary Feedwater (AFW) System," are entered for the associated AFW Train.

Required Action I.1 is modified by a Note that allows placing a train in the bypass condition for up to 8 hours for surveillance testing provided the other train is OPERABLE. This is necessary to allow testing reactor trip system logic which is in the same cabinet with AFW logic. This is acceptable since the other AFW system train is OPERABLE and the probability for an event requiring AFW during this time is low. CL3.3-227

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K.1, K.2.1 and K.2.2 CL3.3-267

Condition K applies to:

- RWST Level - Low Low Coincident with Safety Injection; and

- RWST Level - Low Low Coincident with Safety Injection and Coincident with Containment Sump Level - High.

RWST Level - Low Low Coincident With SI and Coincident With Containment Sump Level - High provides actuation of switchover to the containment sump. Note that this Function requires the bistables to energize to perform their required action. The failure of up to two channels will not prevent the operation of this Function. However, placing a failed channel in the tripped condition could result in a premature switchover to the sump, prior to the injection of the minimum volume from the RWST. Placing the inoperable channel in bypass results in a two-out-of-three logic configuration, which satisfies the requirement to allow another failure without disabling actuation of the switchover when required. Restoring the channel to OPERABLE status or placing the inoperable channel in the bypass

(continued)

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condition within 6 hours is sufficient to ensure that the Function remains OPERABLE, and minimizes the time that the Function may be in a partial trip condition (assuming the inoperable channel has failed high). The 6 hour Completion Time is justified in Reference 8. If the channel cannot be returned to OPERABLE status or placed in the bypass condition within 6 hours, the unit must be brought to MODE 3 within the following 6 hours and MODE 5 within the next 30 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. In MODE 5, the unit does not have any analyzed transients or conditions that require the explicit use of the protection functions noted above.

The Required Actions are modified by a Note that allows placing a second channel in the bypass condition for up to [4] hours for surveillance testing. The total of 12 hours to reach MODE 3 and 4 hours for a second channel to be bypassed is acceptable based on the results of Reference 8.

L.1, L.2.1 and L.2.2

CL3.3-231

Condition L applies to the P-11 and P-12 [and P-14] interlocks.

With one channel inoperable, the operator must verify that the interlock is in the required state for the existing unit condition. This action manually accomplishes the function of the interlock. Determination must be made within 1 hour. The 1 hour Completion Time is equal to the time allowed by LCO 3.0.3 to initiate shutdown actions in the event of a complete loss of ESFAS function. If the interlock is not in the required state (or placed in the required state) for the existing unit condition, the unit must be placed in MODE 3

(continued)

Difference Category	Difference Number 3.3-	Justification for Differences
CL	225	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.
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	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 has been modified to allow one train to be bypassed for 8 hours to allow reactor trip logic to be tested. This is acceptable since the other train of AFW is OPERABLE and the probability of an event requiring AFW during this time is low. Since the AFW logic is unique, NUREG-1431 Condition G does not apply.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	228	ITS Condition J (NUREG-1431 Condition L) is modified to be consistent with the requirements of CTS Table 3.5-2B Action 26 which applies to the Trip of Both Main Feedwater Pumps Function.
	229	Not used.
	230	Not used.
CL	231	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.
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.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	265	CTS do not include calibration of 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 for an allowable value.
CL	266	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.
CL	267	The PI plant design does not include an automatic switchover to containment sump; thus this instrumentation function is not included in the ITS.
	268	Not used.
	269	Not used.
	270	Not used.

Part G

PACKAGE 3.3

INSTRUMENTATION

NO SIGNIFICANT HAZARDS DETERMINATION AND ENVIRONMENTAL ASSESSMENT

NO SIGNIFICANT HAZARDS DETERMINATION

The proposed changes to the Operating License have been evaluated to determine whether they constitute a significant hazards consideration as required by 10CFR Part 50, Section 50.91 using the standards provided in Section 50.92.

For ease of review, the changes are evaluated in groupings according to the type of change involved. A single generic evaluation may suffice for some of the changes while others may require specific evaluation in which case the appropriate reference change numbers are provided.

A - Administrative (GENERIC NSHD)
(A3.3-01, A3.3-02, A3.3-04, A3.3-05, A3.3-07, A3.3-08, A3.3-14, A3.3-18, A3.3-19, A3.3-20, A3.3-21, A3.3-23, A3.3-28, A3.3-29, A3.3-34, A3.3-35, A3.3-38, A3.3-39, A3.3-43, A3.3-47, A3.3-48, A3.3-50, A3.3-51, A3.3-54, A3.3-55, A3.3-56, A3.3-62, A3.3-63, A3.3-65, A3.3-66, A3.3-72, A3.3-75, A3.3-81, A3.3-84, A3.3-85, A3.3-94, A3.3-95, A3.3-107, A3.3-109, A3.3-114, A3.3-121, A3.3-123, A3.3-124, A3.3-126, A3.3-128, A3.3-130, A3.3-133, A3.3-134, A3.3-139, A3.3-141, A3.3-142)

Most administrative changes have not been marked-up in the Current Technical Specifications, and may not be specifically referenced to a discussion of change. This No Significant Hazards Determination (NSHD) may be referenced in a discussion of change by the prefix "A" if the change is not obviously an administrative change and requires an explanation.

Specific NSHD for Change L3.3-36

The proposed change removes MODE 4 from the Modes or Other Conditions of Applicability for the Safety Injection – High Containment Pressure function. This change is acceptable since in MODE 4 there is a low probability of an event that requires initiation of SI on high containment pressure. In MODE 4 an accident would progress slow enough to allow manual SI initiation and assure mitigation of the conditions causing high containment pressure. The manual initiation and logic functions are required to be operable in MODE 4. Thus automatic initiation of SI on high containment pressure in MODE 4 is unnecessary. This change is consistent with the guidance of NUREG-1431.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The Safety Injection – High Containment Pressure function is not an accident initiator; therefore this change does not involve an increase in the probability of an accident. In MODE 4 an accident would progress slow enough to allow manual SI initiation and further assure acceptable consequences. The manual initiation and logic functions are required to be operable in MODE 4. Thus the consequences of an accident are not significantly increased due to this change. Therefore, this change does not involve a significant increase in the probability or consequences of a previously analyzed accident.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

   The proposed change does not involve a physical alteration of the plant; that is, no new or different type of equipment will be installed. This proposed change does not introduce any new mode of plant operation or change the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Specific NSHD for Change L3.3-36 (continued)

3. The proposed amendment will not involve a significant reduction in the margin of safety.

   This change removes SI – High Containment Pressure initiation in MODE 4. Due to the reduced reactor coolant system temperatures and pressures in MODE 4, the probability of an event requiring SI on high containment pressure is low. If a LOCA or MSLB in containment were to occur in MODE 4, the accident would progress slow enough to allow manual SI initiation and containment design pressures would not be challenged. The manual initiation and logic functions are required to be operable in MODE 4 to support manual initiation. Thus the proposed change does not result in a significant reduction in the margin of safety.

Therefore it is concluded this proposed change does not involve a significant hazards consideration. This change is consistent with the guidance of NUREG-1431.

Specific NSHD for Change L3.3-37

The proposed change removes MODE 4 from the Modes or Other Conditions of Applicability for the Containment Spray – High-High Containment Pressure function. This change is acceptable since in MODE 4 there is insufficient energy in the primary or secondary system to pressurize containment to its design pressure. In MODE 4 an accident would progress slow enough to allow manual containment spray initiation and further assure acceptable consequences. The manual initiation and logic functions are required to be operable in MODE 4. Thus automatic initiation of containment spray on high containment pressure in MODE 4 is unnecessary. This change is consistent with the guidance of NUREG-1431.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The Containment Spray– High-High Containment Pressure instrumentation is not an accident initiator; therefore this change does not involve an increase in the probability of an accident. Analyses demonstrate that containment design pressures will not be exceeded if a LOCA or MSLB occurs in MODE 4 without containment spray system mitigation. In MODE 4 an event requiring containment spray would progress slowly and allow sufficient time for the operators to manually initiate the system. The manual initiation and logic functions are required to be operable in MODE 4. Thus the consequences of an accident are not increased since containment spray can be initiated and containment can not be overpressurized. Therefore, this change does not involve a significant increase in the probability or consequences of a previously analyzed accident.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

   The proposed change does not involve a physical alteration of the plant; that is, no new or different type of equipment will be installed. This proposed change does not introduce any new mode of plant operation or change the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Specific NSHD for Change L3.3-37 (continued)

3. The proposed amendment will not involve a significant reduction in the margin of safety.

   This change removes Containment Spray – High-High Containment Pressure initiation in MODE 4. If a LOCA or MSLB in containment were to occur in MODE 4, the accident would progress slow enough to allow manual containment spray initiation and containment design pressures would not be challenged. The manual initiation and logic functions are required to be operable in MODE 4 to support manual initiation. Furthermore, analyses demonstrate that in MODE 4 there is insufficient energy in the primary or secondary system to pressurize containment to its design pressure without containment spray mitigation. Thus the proposed change does not result in a significant reduction in the margin of safety.

Therefore it is concluded this proposed change does not involve a significant hazards consideration. This change is consistent with the guidance of NUREG-1431.

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
3.3.2 I		LCO	Table 3.5-2B	Act 30
3.3.2 J		LCO	Table 3.5-2B	Act 26
3.3.3-1	1	TABLE	Table 3.15-1	1
3.3.3-1	2	TABLE	Table 3.15-1	2
3.3.3-1	3	TABLE	Table 3.15-1	3
3.3.3-1	4	TABLE	Table 3.15-1	4
3.3.3-1	5	TABLE	Table 3.15-1	5
3.3.3-1	6	TABLE	Table 3.15-1	6
3.3.3-1	7	TABLE	Table 3.15-1	7
3.3.3-1	8	TABLE	Table 3.15-1	8
3.3.3-1	9	TABLE	Table 3.15-1	9
3.3.3-1	10	TABLE	Table 3.15-1	10
3.3.3-1	11	TABLE	Table 3.15-1	11
3.3.3-1	12	TABLE	Table 3.15-1	12
3.3.3-1	13	TABLE	Table 3.15-1	13
3.3.3-1	14	TABLE	Table 3.15-1	14
3.3.3-1	15	TABLE	Table 3.15-1	15
3.3.3-1	16	TABLE	Table 3.15-1	16
3.3.3-1	Note a	TABLE	Table 3.15-1	Action b

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1	Perform required visual examinations and leakage rate testing except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program.	In accordance with the Containment Leakage Rate Testing Program
SR 3.6.1.2	Verify containment average air temperature ≤ 44°F above shield building average air temperature.	Prior to entering MODE 4 from MODE 5
SR 3.6.1.3	Verify containment shell temperature ≥ 30°F.	Prior to entering MODE 4 from MODE 5

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more secondary containment bypass leakage or inservice purge penetration leakage not within limit. <u>OR</u> Containment purge blind flange or inservice purge blind flange leakage not within limit.	D.1 Restore leakage within limit.	4 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3. <u>AND</u> E.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.1	Verify each 36-inch containment purge penetration blind flange is installed.	Prior to entering MODE 4 from MODE 5
SR 3.6.3.2	Verify each 18-inch containment inservice purge penetration is blind flanged and meets SR 3.6.1.1.	After each use of the 18-inch containment inservice purge system to ventilate containment
SR 3.6.3.3	---------------------------NOTE--------------------------- Valves and blind flanges in high radiation areas may be verified by use of administrative controls. --- Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	92 days

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.4	---------------------------NOTE--------------------------- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -- Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days
SR 3.6.3.5	Verify the isolation time of each automatic power operated containment isolation valve is within limits.	In accordance with the Inservice Testing Program
SR 3.6.3.6	Perform leakage rate testing for 18 inch containment inservice purge valves with resilient seals.	Prior to system use
SR 3.6.3.7	Verify each automatic containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	24 months
SR 3.6.3.8	Verify the combined leakage rate for all secondary containment bypass leakage paths is in accordance with the Containment Leakage Rate Testing Program.	In accordance with the Containment Leakage Rate Testing Program

BASES

ACTIONS

B.1 and B.2 (continued)

based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

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

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.2

Verifying that the maximum temperature differential between average containment and annulus air temperatures is less than or equal to 44 °F ensures that containment operation remains within the limits assumed for the containment analyses. Plant operating experience demonstrates that this limit can only be approached when the plant is in MODES 5 and 6. Requiring this temperature differential to be verified prior to entering MODE 4 from MODE 5 provides assurance this parameter is within acceptable limits prior to establishing conditions requiring containment integrity.

SR 3.6.1.3

Verifying that the minimum containment shell temperature is met ensures that adequate margin above NDTT exists. Plant operating experience demonstrates that this limit can only be approached when the plant is in MODES 5 and 6. Requiring containment shell temperature to be verified prior to entering MODE 4 from MODE 5 provides assurance that the shell temperature is above NDTT prior to establishing conditions requiring containment integrity.

REFERENCES

1. 10 CFR 50, Appendix J.

2. USAR, Section 14.

BASES

BACKGROUND (continued)

the operators depending on the accident progression and mitigation requirements.

Upon receipt of a containment pressure High-High signal, both main steam isolation valves close which also causes the instrument air line to containment to isolate if a containment isolation signal is also present. In addition to the isolation signals listed above, the containment purge and inservice purge supply and exhaust line valves and dampers receive isolation signals on a safety injection signal, a containment high radiation condition, a manual containment isolation actuation and manual containment spray initiation. As a result, the containment isolation valves (and blind flanges) help ensure that the containment atmosphere will be isolated from the outside environment in the event of a release of fission product radioactivity to the containment atmosphere resulting from a DBA.

The OPERABILITY requirements for containment isolation valves help ensure that containment is isolated within the time limits assumed in the safety analyses. Therefore, the OPERABILITY requirements provide assurance that the containment function assumed in the safety analyses will be maintained.

The containment vacuum breaker system serves a dual function, one of which is containment isolation. However, since the other safety function of the vacuum breaker system would not be available if the normal containment isolation actions were taken, the containment isolation valve OPERABILITY requirements of LCO 3.6.3 are not applicable to the vacuum breaker system. Similar surveillance requirements in the LCO for the containment vacuum breaker system (LCO 3.6.8) provide assurance that the isolation capability is available without conflicting with the vacuum relief function.

BASES

BACKGROUND (continued)

In addition to the normal fluid systems which penetrate containment, two systems which can provide direct access from inside containment to the outside environment are described below.

Containment Purge System (36 inch purge valves)

The Containment Purge System operates to supply outside air into the containment for ventilation and cooling or heating and may also be used to reduce the concentration of noble gases within containment prior to and during personnel access in MODES 5 and 6. The supply and exhaust lines each contain one isolation valve, one isolation damper and a blind flange. The 36 inch purge valves and dampers are not tested to verify their leakage rate is within the acceptance criteria of the Containment Leakage Rate Testing Program. Therefore, blind flanges are installed in MODES 1, 2, 3, and 4 to ensure the containment boundary is maintained.

Inservice Purge System (18 inch purge valves)

The Inservice Purge System operates to:

a. Reduce the concentration of noble gases within containment prior to and during personnel access; and

b. Provide low volume normal purge and ventilation.

Two containment automatic isolation valves and an automatic Shield Building ventilation damper are provided on each supply and exhaust line. The supply and exhaust lines are designed to have blind flanges installed where the lines pass through the shield

BASES

BACKROUND (continued)

building annulus. Normally, during MODES 1, 2, 3, and 4 the blind flanges provide the containment penetration isolation function. When ventilation of containment is required in MODES 1, 2, 3, and 4, the valves will be leak tested, and the blind flanges removed and replaced with a spool piece. Prior to system use, the automatic isolation valves and dampers are verified to be OPERABLE and a debris screen is installed on each line preventing foreign material from inhibiting the proper closing of the valves. When purge of containment is completed and inservice purge system operation is no longer required, the system is returned to its normal operating configuration with the spool pieces removed. The blind flanges are installed on penetrations 42B and 43A (52 and 53 in Unit 2) and tested to meet the acceptance criteria of the Containment Leakage Rate Testing Program.

APPLICABLE SAFETY ANALYSES

The containment isolation valve LCO was derived from the assumptions related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during major accidents. As part of the containment boundary, containment isolation valve OPERABILITY supports leak tightness of the containment. Therefore, the safety analyses of any event requiring isolation of containment is applicable to this LCO.

The DBAs that result in a release of radioactive material to the containment atmosphere are a loss of coolant accident (LOCA) and a rod ejection accident (Ref. 3). In the analyses for each of these accidents, it is assumed that containment isolation valves are either closed or function to close within the required isolation time following event initiation. This ensures that potential paths to the environment through containment isolation valves are minimized. The safety analyses assume that the 36 inch purge lines are blind flanged at event initiation.

BASES

APPLICABLE SAFETY ANALYSES (continued)

In calculation of control room and offsite doses following a LOCA, the accident analyses assume that 25% of the equilibrium iodine inventory and 100% of the equilibrium noble gas inventory developed from maximum full power operation of the core is immediately available for leakage from containment (Ref. 3). The containment is assumed to leak at the maximum allowable leakage rate, L_a, for the first 24 hours of the accident and at 50% of this leakage rate for the remaining duration of the accident.

The containment penetration isolation valves ensure that the containment leakage rate remains below L_a by automatically isolating penetrations that do not serve post accident functions and providing isolation capability for penetrations associated with Engineered Safety Features. The maximum isolation time for automatic containment isolation valves is 60 seconds. This isolation time is based on engineering judgement since the control room and offsite dose calculations are performed assuming that leakage from containment begins immediately following the accident with no credit for transport time or radioactive decay. The 60 second isolation time takes into consideration the time required to drain piping of fluid which can provide an initial containment isolation before the containment isolation valves are required to close and the conservative assumptions with respect to core damage occurring immediately following the accident.

The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.

The containment inservice purge valves have been analyzed to demonstrate they are capable of closing during the design basis LOCA (Ref. 2). During plant operation, the containment inservice purge lines are normally blank flanged and the valves are not relied upon as penetration isolation devices.

BASES

APPLICABLE SAFETY ANALYSES (continued)

Containment isolation also isolates the RCS to prevent the release of radioactive material. However, RCS isolation, not isolation of containment, is required for events which result in failed fuel and do not breach the integrity of the RCS (e.g., reactor coolant pump locked rotor). The isolation of containment following these events also isolates the RCS from all non-essential systems to prevent the release of radioactive material outside the RCS. The containment isolation time requirements for these events are bounded by those for the LOCA.

The Containment Isolation System is designed to provide two in series boundaries for each penetration such that no single credible failure or malfunction (expected fault condition) occurring in any active system component can result in loss of isolation or intolerable leakage in compliance with the AEC GDC 53, "Containment Isolation Valves," (Ref. 4).

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

LCO

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

The containment isolation devices covered by this LCO consist of isolation valves (manual valves, check valves, air operated valves, and motor operated valves), pipe and end caps, closed systems, and blind flanges.

Vent and drain valves located between two isolation devices are also containment isolation devices. A cap or blind flange, as applicable, must be installed on these vent and drain lines to ensure that proper containment isolation is provided.

BASES

LCO (continued)

The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 36 inch purge valves must be blind flanged in MODES 1, 2, 3, and 4. While the containment vacuum breaker trains isolate containment penetrations, they are excluded from this Specification. Controls on their isolation function are adequately addressed in LCO 3.6.8, "Vacuum Breaker System." The valves covered by this LCO are listed in Reference 2 except for the containment vacuum breakers which are covered by LCO 3.6.8.

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

Inservice purge valves with resilient seals (when in operation) and secondary containment (shield building and auxiliary building special ventilation zone) bypass valves must meet additional leakage rate requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," as Type C testing.

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

APPLICABILITY

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

BASES (continued)

ACTIONS

The ACTIONS are modified by four Notes. The first Note allows penetration flow paths, except for 36 inch containment purge system penetration flow paths, to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. Due to the blind flanges on the containment purge system lines during plant operation, the penetration flow path containing these flanges may not be opened under administrative controls.

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve.

In the event containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

BASES

ACTIONS

A.1 and A.2

In the event one containment isolation valve in one or more penetration flow paths is inoperable, except for inservice purge penetrations (when in operation) or secondary containment bypass leakage not within limit, the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated power operated containment isolation valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4.

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and

BASES

ACTIONS

A.1 and A.2 (continued)

the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions.

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

BASES

ACTIONS (continued)

B.1

With two containment isolation valves in one or more penetration flow paths inoperable, except for inservice purge penetration (when in operation) or secondary containment bypass leakage not within limits, the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated power operated valve, a closed manual valve, and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action A.2, which remains in effect. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative control and the probability of their misalignment is low.

Condition B is modified by a Note indicating this Condition is only applicable to penetration flow paths with two containment isolation valves. Condition A of this LCO addresses the condition of one containment isolation valve inoperable in this type of penetration flow path.

BASES

ACTIONS (continued)

C.1 and C.2

With one or more penetration flow paths with one containment isolation valve inoperable, the inoperable valve flow path must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated power operated valve, a closed manual valve, and a blind flange. With the exception of the CVCS, a check valve may not be used to isolate the affected penetration flow path. Required Action C.1 must be completed within the 72 hour Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4. In the event the affected penetration flow path is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. This required Action does not require any testing or device manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements defined in Reference 2. This Note is

BASES

ACTIONS

C.1 and C.2 (continued)

necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

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

D.1

With the secondary containment bypass leakage rate (SR 3.6.3.8), inservice purge penetration (when in operation) leakage rate (SR 3.6.3.6), containment purge blind flange leakage rate (SR 3.6.3.1) or inservice blind flange (when required) leakage rate (SR 3.6.3.2) not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit within 4 hours. If containment purge blind flange leakage rate or inservice blind flange leakage rate limits are not met, it could be due to the blind flange not installed or improperly installed. Inservice purge blind flanges are not required to be installed when the system automatic isolation valves and dampers have been verified to be OPERABLE and the system is operating. Restoration can be accomplished by isolating the penetration(s) that caused the

BASES

ACTIONS

D.1 (continued)

limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage and containment purge penetration leakage to the overall containment function.

E.1 and E.2

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

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1

Each 36 inch containment purge system penetration is required to be blind flanged when the plant is in MODES 1, 2, 3, and 4. This Surveillance is designed to ensure that the blind flange is installed prior to entering MODE 4 from MODE 5.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.2

This SR ensures that the 18-inch containment inservice purge penetrations are blind flanged after each use of the system. Since the inservice purge penetration blind flanges are part of the containment boundary, they are required to meet the Containment Leakage Rate Testing Program acceptance criteria required by SR 3.6.1.1 as required by this SR.

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those containment manual valves and blind flanges outside containment and capable of being mispositioned are in the correct position. Since verification of manual valve and blind flange position for containment isolation valves outside containment is relatively easy, the 92 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

The Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.3.3 (continued)

means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3 and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in the proper position, is small.

SR 3.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation manual valves and blind flanges inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these containment isolation valves or blind flanges, once they have been verified to be in their proper position, is small.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.5

Verifying that the isolation time of each automatic power operated containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program.

SR 3.6.3.6

Since PI only uses the containment inservice purge system infrequently for short periods of time, this SR must be performed prior to each use of the system when containment integrity is required to assure that the valve leakage rate is within an acceptable value.

SR 3.6.3.7

Automatic containment isolation valves close on a containment isolation signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic containment isolation valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.8

This SR ensures that the combined leakage rate of all secondary containment (shield building and auxiliary building special ventilation zone) bypass leakage paths is less than or equal to the specified leakage rate. This provides assurance that the assumptions in the safety analysis are met. The leakage rate of each bypass leakage path is assumed to be the maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. The acceptance criteria and Frequency are provided by the Containment Leakage Rate Testing Program.

Bypass leakage is considered part of L_a.

REFERENCES

1. 10 CFR 50 Appendix A.

2. USAR, Section 5.2.

3. USAR, Section 14.

4. AEC "General Design Criteria for Nuclear Power Plant Construction Permits," Criteria 53, issued for comment, July 10, 1967, as referenced in USAR Section 1.2.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.10.2 (continued)

dampers open and equilibium is established. Equilibrium negative pressure equal to or more negative than -1.82 inches water gage is that predicted for non-accident conditions and leakage equal to 75% of the maximum allowable shield building inleakage (Reference 2). Establishment of this pressure is confirmed by SR 3.6.10.2, which demonstrates that the shield building can be drawn down to ≤ -2.0 inches of vacuum water gauge in the annulus using one Shield Building Ventilation System train.

The primary purpose of this SR is to ensure shield building integrity. The secondary purpose of this SR is to ensure that the Shield Building Ventilation System being tested functions as designed. The inoperability of the Shield Building Ventilation System train does not necessarily constitute a failure of this Surveillance relative to the shield building OPERABILITY.

The 31 day Frequency provides assurance that shield building integrity is maintained and the system will function as required.

REFERENCES

1. USAR, Section 5.3.

2. "Report to the United States Nuclear Regulatory Commission Division of Operating Reactors - Prairie Island Containment Systems Special Analyses", dated April 9, 1976.

3.6.J. Containment and Shield Building Air Temperature

SR3.6.1.2 1. The average temperature of the air in the containment vessel shall not exceed 44°F above the average temperature of the air in the shield building whenever in MODES 1, 2, 3 and 4CONTAINMENT INTEGRITY is required(except as specified in 3.6.J.2 below). A3.6-03

2. If this limit is exceeded and is not corrected within 8 hours, be in at least MODE 3HOT SHUTDOWN within the next 6 hours and be in MODE 5COLD SHUTDOWN

within the following 3036 hours. A3.6-03 A3.6-11

K. Containment Shell Temperature

SR3.6.1.3 1. Containment Shell Temperature shall be equal to or greater than 30°F whenever in MODES 1, 2, 3 and 4CONTAINMENT INTEGRITY is required(except as specified in 3.6.K.2 below). A3.6-03

2. If this limit is exceeded and is not corrected within 8 hours, be in at least MODE 3HOT SHUTDOWN within the next 6 hours and be in MODE 5COLD SHUTDOWN within the following 30 36 hours. R-6

A3.6-03

A3.6-11

L. Electric Hydrogen Recombiners

LCO3.6.7 1. Both containment hydrogen recombiner systems shall be OPERABLE whenever the reactor is in MODES 1 and 2above HOT SHUTDOWN (except as specified in 3.6.L.2 below). A3.6-03

2. One hydrogen recombiner system may be inoperable for 30 days.

If this Required Action and Completion Time is not met, be in MODE 3 within 6 hours. M3.6-39

NOTE: SR 3.0.4 is not applicable. L3.6-28

R-2

LCO3.6.2 M. Containment Air Locks L3.6-75

Notes:
2. Separate Condition entry is allowed for each air lock.

A3.6-42

3. Enter LCO 3.6.1 Conditions when air lock leakage results in exceeding containment leakage rate acceptance criteria. R-2

A3.6-03

1. Each containment air lock shall be OPERABLE with both doors closed whenever in MODES 1, 2, 3 and 4CONTAINMENT INTEGRITY is required except as specified in 3.6.M.2 and 3 below; and except for entry and exit, when at least one air lock door shall be closed. A3.6-49

Add LCO 3.6.2, Required Action A NOTE 1 - Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered.

Add LCO 3.6.2, Required Action B NOTE 1 - Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. R-2

E. Containment Isolation Valves

SR3.6.3.7
SR3.6.9.4

During each refueling shutdown, the containment isolation valves, shield building ventilation valves,

Addressed Elsewhere

and the auxiliary building normal ventilation system isolation valves

shall be tested for operability by applying an actual or a simulated accident signal to them. L3.6-63

F. Post Accident Containment Ventilation System

SR3.6.5.7

During each refueling shutdown, the operability of system recirculating fans and valves, including actuation and indication, shall be demonstrated.

G. Containment and Shield Building Air Temperature A3.6-03

SR3.6.1.2

Prior to entering MODE 4 from MODE 5 ~~establishing reactor conditions requiring integrity~~, the average air temperature difference between the containment and its associated Shield Building shall be verified to be within acceptable limits.

H. Containment Shell Temperature A3.6-03

SR3.6.1.3

Prior to entering MODE 4 from MODE 5 ~~establishing reactor conditions requiring integrity~~, the temperature of the containment vessel wall shall be verified to be within acceptable limits.

R-6

I. Electric Hydrogen Recombiners

Each hydrogen recombiner train shall be demonstrated Operable at least once each refueling interval by:

SR3.6.7.1

a. ~~Verifying during~~ Performing a recombiner system functional test

~~test that the minimum heater sheath temperature increases to greater than or equal to 700°F within 90 minutes. Upon reaching 700°F, increase the power setting to maximum power for 2 minutes and verify that the power meter reads greater than or equal to 60kw.~~ LR3.6-64

SR3.6.7.2

b. ~~Verifying through a~~ Performing a visual examination that there is no evidence of abnormal conditions within the recombiner

~~enclosures (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and~~ LR3.6-64

SR3.6.7.3

c. ~~Verifying the integrity of all heater electrical circuits by~~ performing a resistance to ground test.

~~The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.~~ LR3.6-64

NSHD Category	Change Number 3.6-	Discussion of Change
LR	01	CTS 1.0, Definition of Containment Integrity. Specific details of containment integrity have been relocated to the Bases; thus this definition is not required. This change is consistent with the guidance of NUREG-1431. Since the ITS Bases (under the Bases Control Program in Section 5.5 of the ITS) are licensee controlled, this change is less restrictive.
LR	02	CTS 1.0, Shield Building Integrity. Specific details of shield building integrity have been relocated to the Bases; thus this definition is not required. This change is consistent with the guidance of NUREG-1431. Since the ITS Bases (under the Bases Control Program in Section 5.5 of the ITS) are licensee controlled, this change is less restrictive.
A	03	CTS 3.3.B.1, 3.3.B.2, 3.6.A.1, 3.6.A.2, 3.6.B.1, 3.6.C.2, 3.6.D.2, 3.6.G, 3.6.H.1, 3.6.I.1, 3.6.I.2, 3.6.J.1, 3.6.J.2, 3.6.K.1, 3.6.K.2, 3.6.L.1, 3.6.M.1, 3.6.M.2.c, 3.6.M.3, and Table 4.1-1C Note 39, 4.4.G and 4.4.H. The CTS contain prose descriptions of the conditions for which the specification is applicable. This description has been replaced with the equivalent MODES of applicability for ITS. Since the plant conditions to which this specification apply have not changed, this is an administrative change.
M	04	CTS 3.3.B.1.a and 3.3.B.1.b. The LCO statement has been generalized to require "trains" to be OPERABLE instead of requiring specific components. Since the generalized statement is more inclusive, the ITS LCO statement is more restrictive. This change is consistent with the guidance of NUREG-1431. This change is included in the PI ITS to make it complete and conform to the format of NUREG-1431.

NSHD Category	Change Number 3.6-	Discussion of Change
A	09	CTS 3.6, 4.4, and 4.5. The beginning of each CTS section contains general statements of Applicability and Objectives for that TS section. This Applicability states the systems to which the specifications apply which is a different meaning than the Applicability in NUREG-1431. Since the ITS clearly states within each specification the system to which it applies, administratively these statements have been incorporated. Likewise, the CTS Objectives statement provides an overall purpose for the specifications within the section. These objectives are administratively incorporated in general through the statement of the ITS specification LCO and the supporting Bases. 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.
	10	Not used.
A	11	CTS 3.3.B.2, 3.6.A.2, 3.6.G, 3.6.I.2, 3.6.J.2, 3.6.K.2, 3.6.M.2.c and 3.6.M.3. As a matter of convention, the CTS define times for Required Actions from the time a new action is initiated. The ITS convention defines all action times from the time the first initiated action occurs. Thus this markup shows the time under the ITS convention which is equivalent to the CTS Required Action time. Since in actuality the time has not been changed, this is an administrative change.

NSHD Category	Change Number 3.6-	Discussion of Change
	78	Not used
	79	Not used.

NSHD Category	Change Number 3.6-	Discussion of Change
	79	Not used.

NSHD Category	Change Number 3.6-	Discussion of Change
	79	Not used.

NSHD Category	Change Number 3.6-	Discussion of Change
	79	Not used.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1	Perform required visual examinations and leakage rate testing except for containment air lock testing, in accordance with the Containment Leakage Rate Testing Program ~~10 CFR 50, Appendix J, as modified by approved exemptions~~. ~~The leakage rate acceptance criterion is ≤ 1.0 L_a. However, during the first unit startup following testing performed in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, the leakage rate acceptance criteria are < 0.6 L_a for the Type B and Type C tests, and < 0.75 L_a for the Type A test.~~	~~-----NOTE------ SR 3.0.2 is not applicable ---------~~ CL3.6-102 In accordance with the Containment Leakage Rate Testing Program ~~10 CFR 50, Appendix J, as modified by approved exemptions~~
~~SR 3.6.1.2~~	~~Verify containment structural integrity in accordance with the Containment Tendon Surveillance Program.~~	~~In accordance with the Containment Tendon Surveillance Program~~ CL3.6-101
SR 3.6.1.2	Verify containment average air temperature ≤ 44 °F above shield building average air temperature.	Prior to entering MODE 4 from MODE 5 CL3.6-103 R-6

SURVEILLANCE		FREQUENCY
SR 3.6.1.3	Verify containment shell temperature ≥ 30 °F.	CL3.6-104 Prior to entering MODE 4 from MODE 5 R-6

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more containment air locks with containment air lock interlock mechanism inoperable.	------------NOTES------------ 1. Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry and exit of containment is permissible under the control of a dedicated individual. ----------------------------	
	B.1 Verify an OPERABLE door is closed in the affected air lock.	1 hour
	<u>AND</u>	
	B.2 Lock an OPERABLE door closed in the affected air lock.	24 hours
	<u>AND</u>	
	B.3 --------NOTE--------- Air lock doors in high radiation areas may be verified locked closed by administrative means. -------------------- Verify an OPERABLE door is locked closed in the affected air lock.	Once per 31 days

R-6

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more secondary containment bypass leakage or inservice purge penetration leakage not within limit. OR Containment purge blind flange or inservice purge blind flange leakage not within limit.	D.1 Restore leakage within limit.	4 hours TA3.6-124 R-6 CL3.6-128 R-6
~~E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.~~	~~E.1 Isolate the affected penetration flow path by use of at least one [closed and de-activated automatic valve, closed manual valve, or blind flange].~~ ~~AND~~	~~24 hours~~ CL3.6-126 ~~(continued)~~

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.1	Verify each 36-[42] inch containment purge penetration blind flange is installed valve is sealed closed, except for one purge valve in a penetration flow path while in Condition E of this LCO.	Prior to entering MODE 4 from MODE 531 days
SR 3.6.3.2	Verify each 18-[8] inch containment inservice purge penetrationvalve is blind flanged and meets SR 3.6.1.1closed, except when the [8] inch containment purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open.	After each use of the 18-inch containment inservice purge system to ventilate containment 31 days

CL3.6-127

CL3.6-131

R-6

BASES

~~Frequency are consistent with the recommendations of Regulatory Guide 1.35 (Ref. 4).~~

SR 3.6.1.2

Verifying that the maximum temperature differential between average containment and annulus air temperatures is less than or equal to 44 °F ensures that containment operation remains within the limits assumed for the containment analyses. Plant operating experience demonstrates that this limit can only be approached when the plant is in MODES 5 and 6. Requiring this temperature differential to be verified prior to entering MODE 4 from MODE 5 provides assurance this parameter is within acceptable limits prior to establishing conditions requiring containment integrity. CL3.6-103

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.3 CL3.6-104

Verifying that the minimum containment shell temperature is met ensures that adequate margin above NDTT exists. Plant operating experience demonstrates that this limit can only be approached when the plant is in MODES 5 and 6. Requiring containment shell temperature to be verified prior to entering MODE 4 from MODE 5 provides assurance that the shell temperature is above NDTT prior to establishing conditions requiring containment integrity.

R-6

REFERENCES

1. 10 CFR 50, Appendix J, Option B.
2. UFSAR, Section ~~[~~14~~5]~~.
3. ~~FSAR, Section [6.2].~~
4. ~~Regulatory Guide 1.35, Revision [1].~~

Accident (DBA).

The OPERABILITY requirements for containment isolation valves help ensure that containment is isolated within the time limits assumed in the safety analyses. Therefore, the OPERABILITY requirements provide assurance that the containment function assumed in the safety analyses will be maintained.

The containment vacuum breaker system serves a dual function, one of which is containment isolation. However, since the other safety function of the vacuum breaker system would not be available if the normal containment isolation actions were taken, the containment isolation valve OPERABILITY requirements of LCO 3.6.3 are not applicable to the vacuum breaker system. Similar surveillance rquirements in the LCO for the containment vacuum breaker system (LCO 3.6.8) provide assurance that the isolation capability is available without conflicting with the vacuum relief function. CL3.6-217 PA3.6-211 R-6

In addition to the normal fluid systems which penetrate containment, two systems which can provide direct access from inside containment to the outside environment are described below.

ContainmentShutdown Purge System (36[42] inch purge valves)

The ContainmentShutdown Purge System operates to supply outside air into the containment for ventilation and cooling or heating and may also be used to reduce the concentration of noble gases within containment prior to and during personnel access in MODES 5 and 6. The supply and exhaust lines each contain onetwo isolation valves, one isolation damper and a blind flange. Because of their large size, Tthe 36[42] inch purge valves and dampers in some units are not tested to verify their leakage rate is within the acceptance criteria of the Containment Leakage Rate Testing Programqualified for automatic closure from CL3.6-212

(continued)

~~their open position under DBA conditions~~. Therefore, ~~the~~ blind flanges are

CL3.6-212

BASES

BACKGROUND (continued)

installed~~[42] inch purge valves are normally maintained closed~~ in MODES 1, 2, 3, and 4 to ensure the containment boundary is maintained. R-6

<u>Inservice Purge~~Minipurge~~ System (~~[18]~~ inch purge valves)</u> CL3.6-212

The Inservice Purge~~Minipurge~~ System operates to:

a. Reduce the concentration of noble gases within containment prior to and during personnel access;~~,~~ and

b. Provide low volume normal purge and ventilation~~Equalize internal and external pressures~~.

Two containment automatic isolation valves and an automatic Shield Building ventilation damper are provided on each supply and exhaust line. The supply and exhaust lines are designed to have blind flanges installed where the lines pass through the shield building annulus. Normally, during MODES 1, 2, 3, and 4 the blind flanges provide the containment penetration isolation function. When ventilation of containment is required in MODES 1, 2, 3, and 4, the valves will be leak tested, and the blind flanges removed and replaced with a spool piece. Prior to system use, the automatic isolation valves and dampers are verified to be OPERABLE and a debris screen is installed on each line to prevent foreign material from inhibiting the proper closing of the valves. When purge of containment is completed and inservice purge system operation is no longer required, the system is returned to its normal operating

(continued)

configuration with the spool pieces removed. The blind flanges are installed on penetrations 42B and 43A (52 and 53 in Unit 2) and tested to meet the acceptance criteria of the Containment Leakage Rate Testing Program. Since the valves used in the Minipurge System are designed to meet the requirements for automatic containment isolation valves, these valves may be opened as needed in MODES 1, 2, 3, and 4. R-6

APPLICABLE SAFETY ANALYSES

The containment isolation valve LCO was derived from the assumptions related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during major accidents. As part of the containment boundary, containment isolation valve OPERABILITY supports leak tightness

BASES

APPLICABLE SAFETY ANALYSES (continued)

of the containment. Therefore, the safety analyses of any event requiring isolation of containment is applicable to this LCO.

The DBAs that result in a release of radioactive material to the within containment atmosphere are a loss of coolant accident (LOCA) and a rod ejection accident (Ref. 31). In the analyses for each of these accidents, it is assumed that containment isolation valves are either closed or function to close within the required isolation time following event initiation. This ensures that potential paths to the environment through containment isolation valves (including containment purge valves) are minimized. The safety analyses assume that the 36[42] inch purge lines are blind flangedvalves are closed at event initiation. CL3.6-112

(continued)

In calculation of control room and offsite doses following a LOCA, the accident analyses assume that 25% of the equilibrium iodine inventory and 100% of the equilibrium noble gas inventory developed from maximum full power operation of the core is immediately available for leakage from containment (Ref. 3). The containment is assumed to leak at the maximum allowable leakage rate, L_a, for the first 24 hours of the accident and at 50% of this leakage rate for the remaining duration of the accident. CL3.6-191

The containment penetration isolation valves ensure that the containment leakage rate remains below L_a by automatically isolating penetrations that do not serve post accident functions and providing isolation capability for penetrations associated with Engineered Safety Features. The maximum isolation time for automatic containment isolation valves is 60 seconds. This isolation time is based on engineering judgement since the control room and offsite dose calculations are performed assuming that leakage from containment begins immediately following the accident with no credit for transport time or radioactive decay. The 60 second isolation time takes into consideration the time required to drain piping of fluid which can provide an initial containment isolation before the containment isolation valves are required to close and the conservative assumptions with respect to core damage occurring immediately following the accident. ~~The DBA analysis assumes that, within 60 seconds after the accident, isolation of the containment is complete and leakage terminated except for~~ CL3.6-191

BASES

APPLICABLE SAFETY ANALYSES (continued)

~~the design leakage rate, L_a.~~ The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.

(continued)

The containment inservice purge valves have been analyzed to demonstrate they are capable of closing during the design basis LOCA (Ref. 2). During plant operation, the containment inservice purge lines are normally blank flanged and the valves are not relied upon as penetration isolation barriers.

Containment isolation also isolates the RCS to prevent the release of radioactive material. However, RCS isolation, not isolation of containment, is required for events which result in failed fuel and do not breach the integrity of the RCS (e.g., reactor coolant pump locked rotor). The isolation of containment following these events also isolates the RCS from all non-essential systems to prevent the release of radioactive material outside the RCS. The containment isolation time requirements for these events are bounded by those for the LOCA. CL3.6-191

The Containment Isolation System is designed to provide two in series boundaries for each penetration such that no single credible failure or malfunction (expected fault condition) occurring in any active system component can result in loss of isolation or intolerable leakage in compliance with the AEC GDC 53, "Containment Isolation Valves," (Ref. 4). ~~[The single failure criterion required to be imposed in the conduct of plant safety analyses was considered in the original design of the containment purge valves. Two valves in series on each purge line provide assurance that both the supply and exhaust lines could be isolated even if a single failure occurred. The inboard and outboard isolation valves on each line are provided with diverse power sources, motor operated and pneumatically operated spring closed, respectively. This arrangement was designed to preclude common mode failures from disabling both valves on a purge line.]~~ CL3.6-191

~~[The purge valves may be unable to close in the environment following a LOCA. Therefore, each of the purge valves is~~

(continued)

~~required to remain sealed closed during MODES 1, 2, 3, and 4. In this case, the single failure criterion remains applicable to the containment purge valves due to failure in~~

BASES

APPLICABLE SAFETY ANALYSES (continued)

~~the control circuit associated with each valve. Again, the purge system valve design precludes a single failure from compromising the containment boundary as long as the system is operated in accordance with the subject LCO.]~~

The containment isolation valves satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii)~~the NRC Policy Statement~~.

LCO

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

The containment isolation devices covered by this LCO consist of isolation valves (manual valves, check valves, air operated valves, and motor operated valves), pipe and end caps, closed systems, and blind flanges. PA3.6-213

Vent and drain valves located between two isolation devices are also containment isolation devices. A cap or blind flange, as applicable, must be installed on these vent and drain lines to ensure that proper containment isolation is provided. PA3.6-214

R-2

(continued)

The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 36~~[42]~~ inch purge valves must be blind flanged in MODES 1, 2, 3, and 4~~maintained sealed closed [or have blocks installed to prevent full opening]~~.~~[Blocked purge valves also actuate on an automatic signal.]~~ While the containment vacuum breaker trains isolate containment penetrations, they are excluded from this Specification. Controls on their isolation function are adequately addressed in LCO 3.6.8, "Vacuum Breaker System." The valves covered by this LCO are listed in Reference 2 except for the containment vacuum breakers which are covered by LCO 3.6.8~~along with their associated stroke times in the FSAR (Ref. 2)~~. CL3.6-112 R-2 CL3.6-217 R-2

The normally closed isolation valves are considered OPERABLE when manual valves are closed, automatic power operated valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact. These passive isolation valves/devices are those listed in Reference 2~~1~~. PA3.6-125 R-2

LCO (continued)

Inservice p~~P~~urge valves with resilient seals (when in operation) ~~[~~and secondary containment (shield building and auxiliary building special ventilation zone) bypass valves~~]~~ must meet additional leakage rate requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," as Type C testing. PA3.6-219 R-6

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

(continued)

APPLICABILITY

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

ACTIONS

The ACTIONS are modified by four Notes. The first~~a~~ PA3.6-114 Note allows~~ing~~ penetration flow paths, except for 36~~[42]~~ inch containment purge system~~valve~~ penetration flow paths, to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. Due CL3.6-112 to the blind flanges on~~size of~~ the containment purge system lines during plant operation~~line penetration and the fact that those penetrations exhaust directly from the containment atmosphere to the environment~~, the penetration flow path containing these flanges~~valves~~ may not be opened under administrative controls. ~~A single purge valve in a penetration flow path may be opened to effect repairs to an inoperable valve, as allowed by SR 3.6.3.1.~~

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each

ACTIONS (continued)

penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may

(continued)

allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve. PA3.6-216

In the event containment isolation valve~~the air lock~~ leakage results in exceeding the overall containment leakage rate acceptance criteria, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

A.1 and A.2

In the event one containment isolation valve in one or more penetration flow paths is inoperable,~~[~~except for inservice purge penetrations (when in operation)~~valve~~ or secondary containment~~shield building~~ bypass leakage not within limit~~]~~, the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated power operated~~automatic~~ containment isolation valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4. TA3.6-124

R-6

PA3.6-125

R-2

(continued)

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and

BASES

ACTIONS

A.1 and A.2 (continued)

that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

(continued)

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions. R-2

TA3.6-119

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

BASES

ACTIONS (continued)

B.1

With two containment isolation valves in one or more penetration flow paths inoperable, except for inservice purge penetration (when in operation) or secondary containment bypass leakage not within limits, the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation barrier that cannot be

TA3.6-124 R-6 PA3.6-125

(continued)

adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated power operated~~automatic~~ valve, a closed manual valve, and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action A.2, which remains in effect. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative control and the probability of their misalignment is low.

BASES

ACTIONS

B.1 (continued)

Condition B is modified by a Note indicating this Condition is only applicable to penetration flow paths with two containment isolation valves. Condition A of this LCO addresses the condition of one containment isolation valve inoperable in this type of penetration flow path. R-2

C.1 and C.2

With one or more penetration flow paths with one containment isolation valve inoperable, the inoperable valve flow path must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a

(continued)

closed and de-activated power operated~~automatic~~ valve, a closed manual valve, and a blind flange. With the exception of the CVCS, a~~A~~ check valve may not be used to isolate the affected penetration flow path. Required Action C.1 must be completed within the 72~~[4]~~ hour Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4. In the event the affected penetration flow path is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to

PA3.6-125

CL3.6-221

TA3.6-122

BASES

ACTIONS

C.1 and C.2 (continued)

assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. This required Action does not require any testing or device manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.

PA3.6-222

TA3.6-124

(continued)

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. The closed system must meet the requirements defined in Reference 2. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system.

R-2

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

TA3.6-119

D.1

With the secondary containment~~shield building~~ bypass leakage rate (SR 3.6.3.8), inservice purge penetration (when in operation) leakage rate (SR 3.6.3.6), containment purge blind flange leakage rate (SR 3.6.3.1) or inservice blind flange (when required) leakage rate (SR 3.6.3.2) not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit within 4 hours. If containment purge blind flange leakage rate or inservice blind flange leakage rate limits are not met, it could be

TA3.6-124

R-6

CL3.6-128

(continued)

due to the blind flange not installed or improperly installed. Inservice purge blind flanges are not required to be installed when the system automatic isolation valves and dampers have been verified to be OPERABLE and the system is operating. Restoration can be accomplished by isolating the penetration(s) that caused the limit to be

exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage and containment purge penetration leakage to the overall containment function.

E.1, E.2, and E.3

In the event one or more containment purge valves in one or more penetration flow paths are not within the purge valve leakage limits, purge valve leakage must be restored to within limits, or the affected penetration flow path must be isolated. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a [closed and de-activated automatic valve, closed manual valve, or blind flange]. A purge valve with resilient seals utilized to satisfy Required Action E.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.7. The specified Completion Time is reasonable, considering that one containment purge valve remains closed so that a gross breach of containment does not exist. PA3.6-126

In accordance with Required Action E.2, this penetration flow path must be verified to be isolated on a periodic

(continued)

BASES

ACTIONS

basis. The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be in the isolation position should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment capable of being mispositioned are in the correct position. For the

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

isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

For the containment purge valve with resilient seal that is isolated in accordance with Required Action E.1, SR 3.6.3.7 must be performed at least once every [92] days. This assures that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase during the time the penetration is isolated. The normal Frequency for SR 3.6.3.7, 184 days, is based on an NRC initiative, Generic Issue B-20 (Ref. 3). Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per [92] days was chosen and has been shown to be acceptable based on operating experience.

(continued)

EF.1 and EF.2

R-2

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

BASES (continued)

CL3.6-127

SURVEILLANCE REQUIREMENTS

SR 3.6.3.1

Each 36[42] inch containment purge system penetrationvalve is required to be blind flanged when the plant is in MODES 1, 2, 3, and 4 verified sealed closed at 31 day intervals. This Surveillance is designed to ensure that the blind flange is installed prior to entering MODE 4 from MODE 5a gross breach of containment is not caused by an inadvertent or spurious opening of a containment purge valve. Detailed analysis of the purge valves failed to conclusively demonstrate their ability to close during a LOCA in time to limit offsite doses. Therefore, these valves are required to be in the sealed closed position during MODES 1, 2, 3, and 4. A containment purge valve that is sealed closed must have motive power to the valve operator removed. This can be accomplished by de-energizing the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. 4), related to containment purge valve use during plant operations. In the event purge valve leakage requires entry into Condition E, the Surveillance permits opening one purge valve in a

(continued)

penetration flow path to perform repairs.

SR 3.6.3.2

CL3.6-131

This SR ensures that the 18-inch containment inservice purge penetrationsminipurge valves are blind flanged after each use of the systemclosed as required or, if open, open for an allowable reason. Since the inservice purge penetration blind flanges are part of the containment boundary, they are required to meet the Containment Leakage Rate Testing Program acceptance criteria required by SR 3.6.1.1 as required by this SRIf a purge valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits. The SR is not required to be met when the minipurge valves are open for the reasons stated. The valves may be opened for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open. The minipurge valves are capable of closing in the environment

SURVEILLANCE REQUIREMENTS

SR 3.6.3.2 (continued)

following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency is consistent with other containment isolation valve requirements discussed in SR 3.6.3.3.

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not

TA3.6-132

(continued)

locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those containment manual valves and blind flanges~~isolation valves~~ outside containment and capable of being mispositioned are in the correct position. Since verification of manual valve and blind flange position for containment isolation valves outside containment is relatively easy, the 92~~31~~ day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

PA3.6-223

X3.6-123

R-2

TA3.6-132

The Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3 and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in the proper position, is small.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation manual valves and blind flanges inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing. TA3.6-132 PA3.6-223 R-2 TA3.6-132

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted ~~during MODES 1, 2, 3, and 4, for ALARA reasons~~. Therefore, the probability of misalignment of these containment isolation valves or blind flanges, once they have been verified to be in their proper position, is small. PA3.6-224 PA3.6-223

SR 3.6.3.5

TA3.6-134

Verifying that the isolation time of each ~~power operated and~~ automatic power operated containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. ~~[~~The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program ~~or 92 days~~.~~]~~

BASES

~~SURVEILLANCE REQUIREMENTS (continued)~~

~~SR 3.6.3.6~~

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.~~

SR 3.6.3.6~~7~~

CL3.6-141

~~For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining this penetration leak tight (due to the direct path between containment and the environment),~~

~~a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. 3).~~

Since PI only uses the containment inservice purge system infrequently for short periods of time~~Additionally~~, this SR must be performed prior to each use of the system when containment integrity is required to assure that the valve leakage rate is within an acceptable value~~within 92 days after opening the valve~~. ~~The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.~~ CL3.6-137

SR 3.6.3.7~~8~~

Automatic containment isolation valves close on a containment isolation signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic containment isolation valve

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.3.7~~8~~ (continued)

will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 24~~[18]~~ month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed~~at the [18] month Frequency~~. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. CL3.6-141

SR 3.6.3.9

CL3.6-136

In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.9 verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation.

SR 3.6.3.10

CL3.6-141

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

Verifying that each [42] inch containment purge valve is blocked to restrict opening to ≤ [50]% is required to ensure that the valves can close under DBA conditions within the times assumed in the analyses of References 1 and 2. If a LOCA occurs, the purge valves must close to maintain containment leakage within the values assumed in the

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.3.10 (continued)

accident analysis. At other times when purge valves are required to be capable of closing (e.g., during movement of irradiated fuel assemblies), pressurization concerns are not present, thus the purge valves can be fully open. The 18 month Frequency is appropriate because the blocking

devices are typically removed only during a refueling outage.

SR 3.6.3.811

This SR ensures that the combined leakage rate of all secondary containment (shield building and auxiliary building special ventilation zone) bypass leakage paths is less than or equal to the specified leakage rate. This provides assurance that the assumptions in the safety analysis are met. The leakage rate of each bypass leakage path is assumed to be the maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. This method of quantifying maximum pathway leakage is only to be used for this SR (i.e., Appendix J maximum pathway leakage limits are to be quantified in accordance with Appendix J). The acceptance criteria and Frequency are providedis required by the Containment Leakage Rate Testing Program10 CFR 50, Appendix J, as modified by approved exemptions (and therefore, the Frequency extensions of SR 3.0.2 may not be applied), since the testing is an Appendix J, Type C test. This SR simply imposes additional acceptance criteria.

R-2

CL3.6-102

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

BASES (continued)

REFERENCES

1. 10CFR50 Appendix AFSAR, Section [15].

2. UFSAR, Section 5.2[6.2].

3. USAR, Section 14.~~Generic Issue B-20, "Containment Leakage Due to Seal Deterioration."~~

4. AEC "General Design Criteria for Nuclear Power Plant Construction Permits," Criteria 53, issued for comment, July 10, 1967, as referenced in USAR Section 1.2~~Generic Issue B-24~~.

~~SURVEILLANCE REQUIREMENTS~~

~~SR 3.6.19.4 (continued)~~

~~negative pressure must be established within the time limit to ensure that no significant quantity of radioactive material leaks from the shield building prior to developing the negative pressure.~~

~~The SBACS trains are tested every 18 months on a STAGGERED TEST BASIS to ensure that in addition to the requirements of LCO 3.6.13, "Shield Building Air Cleanup System," either SBACS train will perform this test. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage.~~

CL3.6-177

TA3.6-178

SR 3.6.10.2

The Shield Building Ventilation System produces a negative pressure to prevent leakage from the building. SR 3.6.10.2 verifies that the shield building can be rapidly drawn down to -2.00 inch water gauge and maintains a pressure equal to or more negative than -1.82 inches of water gauge in the annulus after the recirculation dampers open and equilibium is established. Equilibrium negative pressure equal to or more negative than -1.82 inches water gage is that predicted for non-accident conditions and leakage equal to 75% of the maximum allowable shield building inleakage (Reference 2). Establishment of this pressure is confirmed by SR 3.6.10.2, which demonstrates that the shield building can be drawn down to ≤ -2.0 inches of vacuum water gauge in the annulus using one Shield Building Ventilation System train.

R-6

The primary purpose of this SR is to ensure shield building integrity. The secondary purpose of this SR is to ensure that the Shield Building Ventilation System being tested functions as designed. The inoperability of the Shield Building Ventilation System train does not necessarily constitute a failure of this Surveillance relative to the shield building OPERABILITY.

Difference Category	Difference Number 3.6-	Justification for Differences
CL	102	These changes incorporate CTS requirements which include a Containment Leakage Rate Testing Program in accordance with 10 CFR 50 Appendix J Option B. This change also incorporates the provisions of TSTF-52, Revision 3 as appropriate.
CL	103	CTS 3.6.J requires containment average air temperature to be less than or equal to 44°F above the average air temperature in the shield building when containment integrity is required. This current specification is implemented through CTS SR 4.4.G which requires verification of containment air temperature difference from the shield building prior to requiring containment integrity, that is, prior to entering MODE 4 from MODE 5. The containment vessel is uninsulated steel and the concrete shield building walls and dome are 2.5 and 2.0 feet thick respectively. Thus, once the average air temperature difference limit has been established it will continue to be met during plant operation, since heat generated in containment will readily heat the relatively insulated shield building. The current TS requirements are included in proposed SR 3.6.1.2 and the associated Bases. Since the CTS requirements for containment air temperature are addressed as PI ITS SR 3.6.1.2, the NUREG-1431 Specification for Containment Air Temperature, 3.6.5 is unnecessary and has not been included in the PI ITS.

Difference Category	Difference Number 3.6-	Justification for Differences
CL	104	CTS 3.6.K requires the containment vessel shell temperature to be greater than or equal to 30°F whenever containment integrity is required. This specification is implemented through CTS SR 4.4.H which requires verification of containment shell temperature prior to requiring containment integrity, that is prior to entering MODE 4 from MODE 5. These CTS requirements are embodied in proposed PI ITS SR 3.6.1.3 and the associated Bases. Once plant operation commences, the plant heat in containment and the insulating effect of the shield building assure that the containment shell remains above 30°F.
	105	Not used.
PA	106	Minor wording change to make the meaning of this Note clear to the plant operators.
TA	107	This change incorporates TSTF-17, Revision 2. The Bases justification for the 24 month Frequency was revised to read better.
X	108	This is a new SR requirement for PI. Current plant practice is to perform this test during refueling outages. Thus, the Frequency for this SR is proposed as 24 months to allow this test to be performed during refueling outages.

R-Relocation (GENERIC NSHD)
(None)

This License Amendment Request (LAR) proposes to relocate requirements contained in the Current Technical Specifications out of the Technical Specifications into licensee controlled programs. These requirements are relocated because they 1) do not meet the Technical Specifications selection criteria defined in 10 CFR 50.36; or 2) are mandated by current Nuclear Regulatory Commission (NRC) regulations and are therefore unnecessary in the Technical Specifications.

In the NRC Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (dated 7/16/93), the NRC stated:

> ...since 1969, there hs been a trend towards including in Technical Specifications not only those requirements derived from the analyses and evaluations included in the safety analysis report but also essentially all other Commission requirements governing the operation of nuclear power reactors... . This has contributed to the volume of Technical Specifications and to the several-fold increase, since 1969, in the number of license amendment applications to effect changes to the Technical Specifications. It has diverted both staff and licensee attention from the more important requirements in these documents to the extent that is has resulted in an adverse but unquantifiable impact on safety.

Thus, relocation of unnecessary requirements from the Current Technical Specifications should result in an overall improvement in plant safety through more focused attention to the requirements that are most important to plant safety.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

   These proposed changes relocate requirements for structures, systems, components or variables which did not meet the criteria for inclusion in the improved Technical Specifications, or which duplicate regulatory requirements. The affected structures, systems, components or variables are not assumed to be initiators of analyzed events and are not assumed to mitigate accident or transient events.

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
New		SR	3.6.4.1	
3.6.J		SR	3.6.1.2	
3.6.K		SR	3.6.1.3	
3.6.L		LCO	3.6.7	
3.6.M		LCO	3.6.2	
New		LCO	3.6.2	
New		SR	3.6.2.2	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
4.4.E		SR	3.6.9.4	
4.4.E		SR	3.7.12.4	
4.4.F		SR	3.6.5.7	
4.4.G		SR	3.6.1.2	
4.4.H		SR	3.6.1.3	
4.4.I.a		SR	3.6.7.1	
4.4.I.a		(Partial)	Relocated - Bases	
4.4.I.b		SR	3.6.7.2	
4.4.I.b		(Partial)	Relocated - Bases	
4.4.I.c		SR	3.6.7.3	
4.4.I.c		(Partial)	Relocated - Bases	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
ITS Section 3.6				
3.6.1		LCO	1.0	CONTAINMENT INTEGRITY
3.6.1		LCO	3.6.A.1	
3.6.1		LCO	3.6.A.2	
3.6.1.1		SR	1.0	CONTAINMENT INTEGRITY
3.6.1.1		SR	4.4.A.1	
3.6.1.1		SR	4.4.A.3	
3.6.1.1		SR	4.4.C	
3.6.1.2		SR	3.6.J	
3.6.1.2		SR	4.4.G	
3.6.1.3		SR	3.6.K	
3.6.1.3		SR	4.4.H	
3.6.2		LCO	1.0	CONTAINMENT INTEGRITY
3.6.2		LCO	3.6.M	
3.6.2		LCO	New	
3.6.2.1		SR	1.0	CONTAINMENT INTEGRITY
3.6.2.1		SR	4.4.A.2	

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
3.6.2.2		SR	New	
3.6.3		LCO	1.0	CONTAINMENT INTEGRITY
3.6.3		LCO	3.6.C.1	
3.6.3		LCO	3.6.D.1	
3.6.3		LCO	3.6.D.2	
3.6.3		LCO	New	
3.6.3.1		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.1		SR	New	
3.6.3.2		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.2		SR	3.6.D.2.e	
3.6.3.3		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.3		SR	New	
3.6.3.4		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.4		SR	New	
3.6.3.5		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.5		SR	New	
3.6.3.6		SR	3.6.D.2.b	
3.6.3.7		SR	4.4.A.3	

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
3.6.3.7		SR	4.4.E	
3.6.3.8		SR	1.0	CONTAINMENT INTEGRITY
3.6.3.8		SR	4.4.A.3	
3.6.4		LCO	3.6.I.1	
3.6.4		LCO	3.6.I.2	
3.6.4.1		SR	New	
3.6.5		LCO	3.3.B.1.a	
3.6.5		LCO	3.3.B.1.b	
3.6.5		LCO	3.3.B.2.a	
3.6.5		LCO	3.3.B.2.b	
3.6.5		LCO	New	
3.6.5.1		SR	New	
3.6.5.2		SR	4.5.B.2	
3.6.5.3		SR	4.5.A.3	
3.6.5.4		SR	4.5.B.1.a	
3.6.5.5		SR	4.5.B.3.f	
3.6.5.6		SR	4.5.A.2.a	
3.6.5.7		SR	4.4.F	
3.6.5.8		SR	4.5.A.2.b	

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
3.6.6		LCO	3.3.B.1.c	
3.6.6		LCO	3.3.B.2.c	
3.6.6		LCO	New	
3.6.6.1		SR	New	
3.6.6.2		SR	New	
3.6.6.3		SR	Table 4.1-2B	11
3.6.6.4		SR	4.5.B.3.f	
3.6.7		LCO	3.6.L	
3.6.7.1		SR	4.4.I.a	
3.6.7.2		SR	4.4.I.b	
3.6.7.3		SR	4.4.I.c	
3.6.8		LCO	3.6.B.1	
3.6.8		LCO	3.6.B.2	
3.6.8		LCO	3.6.B.3	
3.6.8.1		SR	Table 3.5-1	7
3.6.8.1		SR	Table 4.1-1C	10
3.6.8.1		SR	Table 4.1-1C	Note 39
3.6.8.1		SR	4.4.C	
3.6.8.2		SR	Table 4.1-1C	10

Improved Technical Specification Cross-Reference

ITS Section	ITS Table Item Number	Section Type	CTS Section	CTS Table Item Number
3.6.8.2		SR	Table 4.1-1C	Note 39
3.6.9		LCO	1.0	SHIELD BLDG INTEGRITY
3.6.9		LCO	3.6.H	
3.6.9.1		SR	4.4.B.4.d	
3.6.9.2		SR	4.4.B.3	
3.6.9.2		SR	4.4.B.5	
3.6.9.3		SR	4.4.B.3.c	
3.6.9.4		SR	4.4.E	
3.6.10		LCO	1.0	SHIELD BLDG INTEGRITY
3.6.10		LCO	3.6.G	
3.6.10.1		SR	1.0	SHIELD BLDG INTEGRITY
3.6.10.1		SR	New	
3.6.10.2		SR	4.4.B.1	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	

5.2 Organization

5.2.2 Plant Staff (continued)

have not been assigned. Routine deviation from the working hour guidelines shall not be authorized.

e. The operations manager or assistant operations manager shall hold an SRO license. In addition, the duty shift manager shall hold an SRO license.

f. In MODES 1, 2, 3, and 4, the shift technical advisor shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit.

5.2.2B. Plant Staff (continued)

5.2.2

b3. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a6.2.B.1 and 5.2.2.f6.2.B.7 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. A5.0-06

c4. An individual qualified in radiation protection procedures shall be on site when fuel is in a reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.

d5. Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety related functions (e.g., licensed SROs, licensed ROs, health physicists, auxiliary operators, and key maintenance personnel).

The procedures shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

Any deviations from the working hour guidelines shall be authorized in advance by the pPlant mManager or designee in accordance with approved administrative procedures and with documentation of the basis for granting the deviation. A5.0-13 A5.0-12

Controls shall be included in the procedures to require a periodic independent review be conductedsuch that individual overtime shall be reviewed monthly by the Plant Manager or designee, to ensure that excessive hours have not been assigned. Routine deviation from the working hour guidelines shall not be authorized. A5.0-13 A5.0-12

e6. The operations manager or assistant operations manager shall hold an SRO license. In addition, the duty shift manager shall hold an SRO license. M5.0-37 R-6

f7. In MODES 1, 2, 3, and 4, tThe shift technical advisor (STA) shall provide advisory technical support to the unit operations shift crewshift supervisor in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. Personnel performing the function of the STA shall be assigned to the shift crew when a unit is in MODE 1, 2, 3, or 4. A5.0-13

NSHD category	Change number 5.0-	Discussion Of Change
M	37	CTS 6.2.6. A new requirement is included which specifies that the duty shift manager shall hold an SRO license. Currently the shift managers fill the function of STA and in accordance with CTS 6.3.1 (ITS 5.3.1) are required to hold an SRO license. NMC may augment the operating staff with dedicated STAs which NMC intends to be licensed as required by CTS 6.3.1 (ITS 5.3.1). The addition of this new provision in CTS 6.2.6 (ITS 5.2.e) will allow the shift managers to remain licensed with an SRO.

5.2 Organization

ef. The (oOperations mManager or aAssistant oOperations mManager) shall hold an SRO license. In addition, the duty shift manager shall hold an SRO license. CL5.0-51 PA5.0-87 R-6

fg. In MODES 1, 2, 3, and 4, tThe sShift tTechnical aAdvisor (STA) shall provide advisory technical support to the unit operations shift crew Shift Supervisor (SS) in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. PA5.0-57

Difference Category	Difference Number 5.0-	Justification for Differences
	85	Not used.
TA	86	A new program, PI ITS 5.5.15, "Battery Monitoring and Maintenance Program" has been included to incorporate approved TSTF-360, Rev. 1. TSTF-360 was revised to be consistent with PI design and current testing and maintenance practices based on manufacturer recommendations and industry practices. The TSTF was also revised to reflect PI specific float voltage value of < 2.13 V as to the limit where maintenance on the battery cell(s) is required. In addition, PI has added the service building batteries to this Program to ensure they are maintained and tested to the same requirements as the safeguards batteries, when the service building batteries are used in lieu of the safeguards batteries.
PA	87	A new requirement for the duty shift managers to hold an SRO is included as discussed in DOC M5.0-37.

M - More restrictive (GENERIC NSHD)
(M5.0-17, M5.0-23, M5.0-37)

This proposed Technical Specifications revision involves modifying the Current Technical Specifications to impose more stringent requirements upon plant operations to achieve consistency with the guidance of NUREG-1431, correct discrepancies or remove ambiguities from the specifications. These more restrictive Technical Specifications have been evaluated against the plant design, safety analyses, and other Technical Specifications requirements to ensure the plant will continue to operate safely with these more stringent specifications.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed changes provide more stringent requirements for operation of the plant. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter assumptions relative to mitigation of an accident or transient event.

   These more restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

   The proposed changes do not involve a physical alteration of the plant, that is, no new or different type of equipment will be installed, nor do they change the methods governing normal plant operation.

   These more stringent requirements do impose different operating restrictions. However, these operating restrictions are consistent with the boundaries established by the assumptions made in the plant safety analyses and licensing bases. Therefore, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

Current Technical Specification Cross-Reference

CTS Section	CTS Table Item Number	Section Type	ITS Section	ITS Table Item Number
Table 3.5-2B	7d*	TABLE	3.3.2-1	Note g
Table 3.5-2B	7e	TABLE	3.3.2-1	6c
Table 3.5-2B	7f	TABLE	3.3.2-1	6a
Table 3.5-2B	8a	LCO	3.3.4.a	
Table 3.5-2B	8b	LCO	3.3.4.b	
Table 3.5-2B	9		Deleted - LAR	
Table 3.5-2B	Act 20	LCO	3.3.2 C	
Table 3.5-2B	Act 21	LCO	3.3.2 D	
Table 3.5-2B	Act 21	LCO	3.3.2 E	
Table 3.5-2B	Act 22	LCO	3.3.5 A	
Table 3.5-2B	Act 23	LCO	3.3.2 B	
Table 3.5-2B	Act 24	LCO	3.3.2 D	
Table 3.5-2B	Act 24	LCO	3.3.2 G	
Table 3.5-2B	Act 25	LCO	3.3.2 F	
Table 3.5-2B	Act 26	LCO	3.3.2 J	
Table 3.5-2B	Act 27	LCO	3.7.2	
Table 3.5-2B	Act 28	LCO	3.3.2 F	
Table 3.5-2B	Act 29	LCO	3.3.2 D	