NMC
Committed to Nuclear Excellence

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

January 31, 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 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 3.3.3, "Event Monitoring (EM) Instrumentation", Specification 3.3.4, "4 kV Safeguards Bus Voltage Instrumentation", and Specification 3.3.5, "Containment Ventilation Isolation Instrumentation", and the Nuclear Management Company (NMC) answers to these RAIs. With the responses attached to this letter and the responses previously submitted November 12, 2001 and January 25, 2002, all Section 3.3 RAIs have been answered.

A001

NMC also proposes to make review changes and corrections identified as E20 and E21. Changes designated as E20 incorporate approved TSTF-358 which addresses handling of missed Surveillances. Changes designated as E21 restore high steam flow as an input into the main steam line isolation logic (MSLIL). The December 11, 2000 submittal assumed that a separate LAR would be submitted to justify removal of the high steam flow input to MSLIL. At this time, NMC does not intend to submit a separate LAR removing high steam flow input from MSLIL and therefore it is being restored in ITS as an input to MSLIL. An allowable value for high steam flow has not been included in these proposed ITS change pages since an evaluation in accordance with the Prairie Island Setpoint Methodology has not been completed. The appropriate value will be submitted with a later supplement to this LAR.

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 7 change pages which implement answers to Specification 3.3.3, 3.3.4 and 3.3.5 RAIs and the Review Change/Errata changes designated as E20 and E21. Changes to the Revision 7 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 1/2/02. Change Pages from Parts C and E are marked as Revision 7 with a small textbox below the revision sideline which contains "R-7".

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, January 25, 2002 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

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 Specification 3.3.3, "Event Monitoring (EM) Instrumentation", Specification 3.3.4, "4 kV Safeguards Bus Voltage Instrumentation", and Specification 3.3.5, "Containment Ventilation Isolation Instrumentation", and NMC Responses.
2. Page List by RAI Q
3. Revision 7 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 31, 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 M. K. Nazar
Mano K. Nazar
Site Vice President
Prairie Island Nuclear Generating Plant

State of Minnesota

County of Goodhue

On this 31st 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.

Marlys E. Davis

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

ITS Submittal Copies

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NRC DCD	1			1
Tae Kim	1	2	1	3
NRC RIII	1	1		
NRC RI	1	1		
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Pearce	1		1	
Swigart	1		1	
Jantosik	1		1	
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Weinkam	1		1	
R. Anderson	1			
D Hoffman	1		1	
Alders	1		1	
PB Lic Mgr	1		1	
K Lic Mgr	1		1	
Beach	1		1	
Fujimoto	1		1	
Gillispie	1		1	
Larry Davis (Duke Eng.)	1		1	
Mike Johnson	1		1	
Chris Mundt	1		1	
Reddemann	1		1	
Solymossy	1		1	
Cutter	1		1	
Nazar	1			
Werner	1			
Lingle	1			
Albrecht	1			
Amundson	1			
Williams	1			
Jefferson	1			
Eckholt	1		1	
Kivi	1			
Leveille	1			
Vincent	1		1	2
Frost	1		1	1
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	**44**	**4**	**45**	**16**

Prairie Island Nuclear Generating Plant

Attachment 1

to
Supplement dated January 31, 2002
to License Amendment Request dated December 11, 2000
Conversion to Improved Technical Specifications (ITS)

NRC RAIs for ITS Specification 3.3.3, "Event Monitoring (EM) Instrumentation", Specification 3.3.4, "4 kV Safeguards Bus Voltage Instrumentation", and Specification 3.3.5, "Containment Ventilation Isolation Instrumentation" and NMC Responses

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

3.3.3-1

RAI 3.3.3- Undocumented change - #1, ITS page 3.3.3-5;
ITS SR 3.3.3.2, Note
The addition of "Neutron detectors are excluded from CHANNEL CALIBRATION" is included in the ITS without a supporting discussion of change reference to CTS.

NMC Response:
Parts affected by this change:
Part C: CTS markup
Part D: DOC A3.3-143
Part G: No Significant Hazards Determination (NSHD)

The CTS has been revised to include the statement, "Neutron detectors are excluded from CHANNEL CALIBRATION". In addition, DOC A.3.3-143 has been written providing a discussion of change for the addition of the subject statement.

3.3.4-1

RAI 3.3.4- Undocumented change -#1, page 3.3.4-1
ITS ACTIONS Note
The ITS allowance "Separate Condition entry is allowed for each Function." is added to the ITS without a discussion of change to CTS. Provide a DOC.

NMC Response:
Parts affected by this change:
Part C: CTS markup
Part D: Discussion of Change (DOC)
Part G: No Significant Hazards Determination (NSHD)

The ITS allowance "Separate Condition entry is allowed for each Function." has been added to the CTS and DOC A3.3-150 has been provided. For completeness, Function 8c, "Automatic Load Sequencers," has also been added and DOC A3.3-151 provided.

3.3.4-2

RAI 3.3.4- Undocumented change -#2, page 32 of 72 (Part C)
Provide a Discussion of Change for deleting CTS channels per phase and phases per bus requirements in Table 3.5-2B, Loss of Power Functions 8.a and 8.b.

NMC Response:
Parts affected by this change:
Part B: Final ITS pages
Part C: CTS markup
Part E: ISTS markup

CTS Table 3.5-2B, Function 8 requires 4 channels per bus, 2 per phase on 2 phases for both the Degraded Voltage (DV) sub-Function 8a and Undervoltage (UV) sub-Function 8b. ITS LCO 3.3.4 requires 2 channels per bus for both DV and UV Functions. As will be demonstrated in the following discussion, the redefinition of channels along with the associated Required Actions (RAs) either bound or are functionally equivalent to the CTS channels and their associated Actions. These changes make the Technical Specifications more technically correct and consistent with other safeguards logic channels. Unlike most other safeguards protection logic channels, the 4 kV DV and UV CTS channels are not designed to interact equally. For example, in the Reactor Trip System logic, when two out of four channels are required for actuation, any two channels can combine to initiate actuation. As discussed below, redefining the 4 kV protection channels in ITS make these channels more consistent with other logic schemes and more consistent with NUREG-1431.

Eight relays provide the inputs to the 4 kV DV and UV functions for each bus. Four relays per bus provide input to the DV function and four relays per bus provide input to the UV function. The sketch below is representative of the logic for both of these Functions on both buses. Two phases on each bus have two relays, labeled in the sketch as Phase A and Phase C. The input from the four relays, A1, A2, C1 and C2, shown on the sketch are the four channels per bus required by CTS. Input from A1 and A2 are the 2 channels for Phase A and input from C1 and C2 are the 2 channels for Phase C as required by CTS.

With one CTS channel inoperable, CTS Action 31 allows the inoperable channel to be placed in bypass. Table 3.5-2B requires a minimum of three channels per bus, therefore Action 31 could be entered for both buses. Because of the AND-logic combining the paired inputs, the channel paired with the inoperable channel is also functionally inoperable and the output from the AND-logic will not actuate. With two CTS channels inoperable, CTS Action 32 requires placing the second inoperable channel in the tripped condition and verifying that no channels on the other bus are inoperable. If the second inoperable channel is paired with the first inoperable channel, then no further degradation of the Function logic has occurred. However if the second inoperable channel is in the other channel pair, then half of the input to the AND-logic has been actuated and a single signal from the other channel in the second pair will cause the Function to actuate. In this condition the plant may be vulnerable to a single instrument signal causing, or failing to cause, actuation of a safeguards system. In actuality, the plant would probably not trip one of the 4 kV DV or UV CTS channels because the system is not designed to trip one of these channels and it could be difficult to implement this RA. If the time requirements of Action 31 or 32 are not met, or if three CTS channels are inoperable, Action 33 specifies actions to be taken to place the plant in a safe condition. Rather than trip one CTS channel in accordance with Action 32, the plant would most likely enter Action 33.

ITS has redefined the channels as shown on the sketch as ITS channels 1 and 2. The input from relays A1 and C1 combine in the AND-logic to provide ITS channel 1 input to the actuation circuitry. Likewise, input from relays A2 and C2 combine in the AND-logic to provide ITS channel 2 input to the actuation circuitry. These two channels satisfy the ITS requirement for two channels per bus. If one ITS channel is inoperable, LCO 3.3.4 RA A.1 requires placing the channel in bypass which means this channel will not provide input to the actuation circuitry. This is functionally equivalent to CTS Action 31 because when one CTS channel input to the AND-logic is bypassed, that AND-logic will not provide input to the actuation circuitry. If two ITS channels are inoperable, LCO 3.3.4 RAs B.1 through B.4 specify actions to be taken to place the plant in a safe condition equivalent to CTS Action 33.

CTS will allow two CTS channels to be inoperable indefinitely per Action 31, one CTS channel on each bus. CTS will also allow two CTS channels to be inoperable per Action 32, two channels on one bus and no channels on the other bus. However, Actions 31 and 32 are logically inconsistent and unnecessarily restrictive as can be seen from examination of logic diagram. With one CTS channel inoperable per Action 31, the other CTS channel paired with the inoperable channel is also effectively

inoperable and serves no purpose, that is, the CTS channel paired with the inoperable channel could be inoperable also with no further degradation of the protection logic. CTS Action 31 could also be entered for an inoperable CTS channel on the other bus which would mean that another two CTS channels are functionally inoperable. When a second CTS channel becomes inoperable the plant enters Action 32 which requires tripping the inoperable channel and verifying that no channels are inoperable on the other bus. As has been discussed above, if the second inoperable CTS channel is paired with the first inoperable channel, then the 4 kV protection logic has not in any way been further degraded.

The proposed ITS definition of channels recognizes the design of this logic and will require the output from the AND-logic to be operable for an ITS channel to be operable. Since it is irrelevant whether one or both inputs to the AND-logic are operable once one has been bypassed, ITS is functionally equivalent to CTS. Even if it were easy to trip a CTS channel, it would not be meaningful to trip the input to the AND-logic when a second input is inoperable, as required by CTS Action 32, because there is no impact on the performance of the protection logic. Therefore, ITS does not require this aspect of CTS Action 32. Since one inoperable CTS channel bypassed on each bus per CTS Action 31 is functionally equivalent to two paired channels inoperable, inoperability of a second CTS channel in one bus in the same channel pair does not result in further protection logic degradation. Therefore, the CTS Action 32 requirement to verify the other bus has no inoperable channels is not required. Therefore, for these conditions, ITS does not require verification that no inoperability has occurred on the other bus.

If a second CTS channel is inoperable on the other channel pair, CTS Action 32 requires tripping the channel and verifying that no CTS channels on the other bus are inoperable. Prairie Island does not consider this to be a viable plant configuration since the CTS channels are not designed to be tripped. Therefore, for this condition, ITS requires taking actions equivalent to CTS Action 33 to assure the plant is operating safely assuming the load sequencer does not function. Therefore the requirements of ITS bound the CTS requirements and RA equivalent to Action 32 are not included in ITS.

Actions equivalent to CTS Action 32 are not needed because:

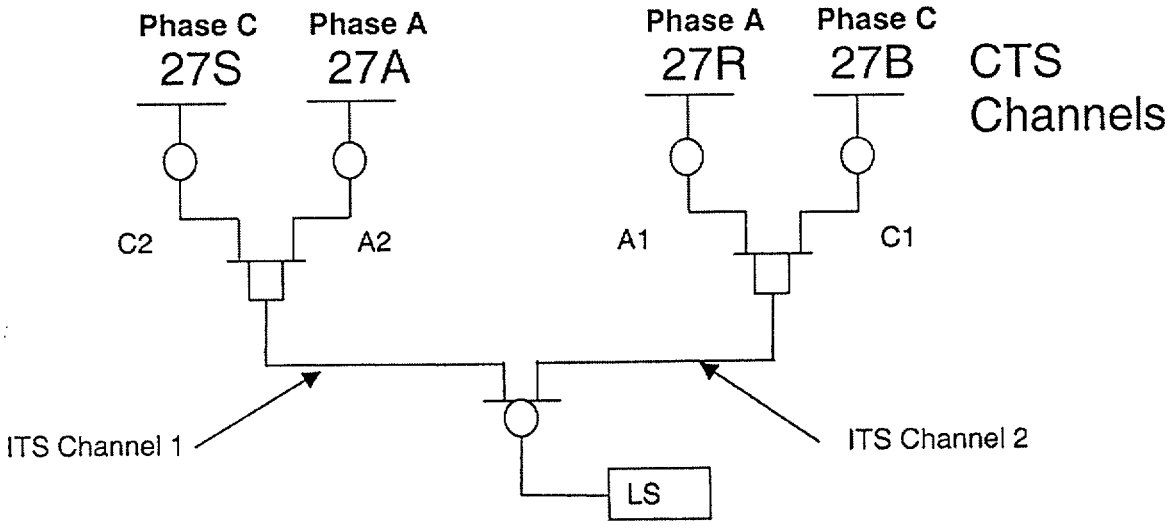
1) The CTS condition when one CTS channel is bypassed and the other CTS channel in the same pair is tripped has already been addressed by ITS RA A.1 which will require bypassing that AND-logic output; and

2) The CTS condition when one CTS channel is bypassed (which means the AND-logic output from that CTS channel pair will not actuate) and one CTS channel in the other pair is tripped is not allowed by ITS. In ITS, when the output from the second AND-logic is inoperable, ITS requires actions to place the plant in a safe operating condition equivalent to CTS Action 33.

Thus CTS Action 32 is not explicitly included in ITS. If the second inoperability is in the same pair as the first, then ITS RA A.1 has already provides equivalent actions. If the second inoperability is in the other pair, the ITS RAs B.1 through B.4 supercede CTS Action 32 and goes directly to the equivalent of CTS Action 33.

As discussed in A3.3-56 and A3.3-57, these changes have been made to be more technically correct. The Prairie Island 4 kV DV and UV logic were not designed to be placed in trip, thus it is not practical to place a channel in trip as allowed by CTS Action 32. Therefore the 4 kV DV and UV Function channel definition has been changed and ITS 3.3.4 has been revised to provide actions which are functionally equivalent to or bound CTS actions. These ITS RAs are more technically correct than CTS. CTS was revised to show the change in channel definition which is addressed in DOC A3.3-56. ITS Bases 3.3.4 have been revised to clarify when a channel is inoperable.

DV logic
UV



3.3.5-1

RAI 3.3.5- Undocumented change -#1, pages 58 and 59 of 72 (Part C)
Table 4.1-1B requirements to perform a Functional Test of Manual and for Automatic Actuation Logic and Actuation Relays for Containment Ventilation Isolation channel/trains are translated as a TADOT with a note that setpoint verification is not required. The Table 4.1-1B requirement to perform a Functional Test of High Radiation in Exhaust Air for Containment Ventilation Isolation channels is translated as a COT. Provide safety basis discussion to document the CTS changes proposed for ITS.

NMC Response:
Parts affected by this change:
None

The title of the test column in CTS Table 4.1-1B is Functional Test. CTS does not make distinctions in the Technical Specifications between the various types of tests such as NUREG-1431 does. The definition of CHANNEL FUNCTIONAL TEST in CTS 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." This definition is similar to the ISTS definitions for ACTUATION LOGIC TEST (ALT), CHANNEL OPERATIONAL TEST (COT), AND TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT). The SRs required by CTS in this column have been designated in ITS as the test appropriate for the instrument or device which is required to be tested. The CTS Functional Test in Table 4.1-1B requirement for Manual Function has been translated as a TADOT in ITS. The CTS Functional Test requirement in Table 4.1-1B for Automatic Actuation Relay Logic Function has been translated as an ALT in ITS. The CTS Functional Test requirement in Table 4.1-1B for High Radiation in Exhaust Air Function has been translated as a COT in ITS. These are all appropriate for the instrument or device to be tested and are consistent throughout the ITS.

3.3.5-2

RAI 3.3.5- Undocumented change -#2, page 59 of 72 (Part C)
Table 4.1-1B requirements to perform a daily Check of High Radiation in Exhaust Air for Containment Ventilation Isolation channels is translated as a Channel Check once per shift. Provide safety basis discussion to document the CTS changes proposed for ITS.

NMC Response:
Parts affected by this change:
Part C: CTS markup
Part D: DOC M3.3-144
Part G: No Significant Hazards Determination (NSHD)

The CTS has been revised by adding DOC M3.3-145.

3.3.5-3

10/30/01 RAI 3.3.5- Undocumented change -#3, page 39 of 72 (Part C)
CTS 3.6.D.2.e. and f. require operability of the automatic shield building ventilation damper in each duct that penetrates containment. This CTS requirement is deleted. Provide a discussion of change justification for this less restrictive requirement.

NMC Response:
Parts affected by this change:
Part C: CTS markup
Part D: DOCs L3.3-53, A3.3-146, A3.3-147, A3.3-148, and A3.3-149
Part G: No Significant Hazards Determination (NSHD)

It appears this question is directed at CTS 3.6.D.2.c and 3.6.D.2.d. The CTS markup has been revised to better identify and reflect compliance with LCO 3.3.5, APPLICABILITY Statement, and Conditions B and C. In addition, associated DOCs were either revised or generated to discuss changes made to the CTS.

3.3.4-3

334 Comment:
Provide a Discussion of Change for deleting CTS channels per phase and phases per bus requirements in Table 3.5-2B, Loss of Power Functions 8.a and 8.b on page 32 of 72 Markup for PI ITS Part C.

NMC Response:
Parts affected by this change:

See response to RAI 3.3.4-2.

DISCUSSION OF CHANGE

3.3.M-01 LR 010 Table 3.5-1, Function 8 and Table 4.1-1C, Function 24. The Steam Exclusion System (SES) actuation instrumentation and the associated setpoint have been relocated to the TRM. This is acceptable because the TRM will require this instrumentation to be operational. Since the TRM is licensee controlled, this is a less restrictive change. Changes to the TRM will continue to be under the regulatory controls of 10 CFR 50.59.

10/30/01 Comment:
Relocated Current Technical Specification. Current TS proposed to be relocated to licensee controlled documents are required to be evaluated for retention in ITS per 50.36(c)(2)(ii). Provide a 50.36(c)(2)(ii) analysis to support a R-DOC NSHC classification.

NMC Response:
Parts affected by this change:
Part D: DOC R3.3-152

A new DOC R3.3-152 has been included which provides the requested 10 CFR 50.36 evaluation of the Steam Exclusion System.

3.3.5-3 L 053 Table 3.5-2B, Action 22. In conformance with the guidance of NUREG-1431, this action statement has been modified to allow this system to continue operating for up to 4 hours with one train of radiation monitoring inoperable. Since this change may allow additional operating flexibility, this is a less restrictive change. This change is acceptable since it is usual to allow some time to operate with one train of equipment inoperable when the redundant train is operable and able to perform the safety function.

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

NMC Response:
Parts affected by this change:

See response to previous RAI 3.3.5-3

3.3.5-4 A 054 Table 3.5-2B, Action 22. Since this system is normally blind flanged and therefore not operating, this action statement is modified to reference the specifications which govern its operation. This change is only a clarification which does not change any specification requirements or affect plant operations, therefore; this is an administrative change.

335 Comment:
Table 3.5-2B, Action 22 is shown with changes that include a parenthetical reference to ITS LCO 3.6 3 and 3.9.4. DOC L-54 does not contain discussion of this, and other CTS action statement changes proposed for ITS. Provide a safety basis discussion to document CTS changes proposed for ITS.

NMC Response:
Parts affected by this change:
Reference RAI 3.3.5-3.

See response to RAI 3.3.5-3.

3.3.4-4 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.

334 Comment:
Revise ITS to include NUREG-1431 Condition B modified to be consistent with CTS Action 32 for two inoperable channels per bus.

NMC Response:
Parts affected by this change:

See response to RAI 3.3.4-2.

3.3.4-5 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.

334 Comment:
Revise ITS to include NUREG-1431 Condition C to be consistent with CTS Action 33 for Conditions A or B not met.

NMC Response:
Parts affected by this change:

See response to RAI 3.3.4-2.

3.3.4-6 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.

10/30/01 334 Comment:
NUREG-1431 establishes TS requirements for automatic load sequencers in LCO 3.8.1. For the purpose of completeness and consistency with NUREG-1431 revise the ITS to include sequencer operability requirements in LCO 3.8.1.

NMC Response:
Parts affected by this change:
None

NUREG-1431 LCO 3.8.1 and Bases include automatic load sequencers as a bracketed requirement which means it is not required for all plants. Specifically, ISTS LCO 3.8.1 Condition F Reviewer's Note states, "This Condition may be deleted if the unit design is such that any sequencer failure mode will only affect the ability of the associated DG to power its respective safety loads following a loss of offsite power independent of, or coincident with, a Design Basis Event." Under the guidance of the Condition F Reviewer's Note, PI would not be required to include automatic load sequencers in LCO 3.8.1.

In the early 1990's, PI installed state-of-the-art programmable logic controller (PLC) automatic load sequencers. The automatic load sequencer PLCs are closely coupled with the degraded voltage (DV) and undervoltage (UV) relays to the extent that they are functionally

3.3.4-6 M 059 (continued)

inseparable. It is NMC's position that if automatic load sequencers are included in ITS, then the proper location is LCO 3.3.4 with the DV and UV relays. Since the automatic load sequencers are logic which is part and parcel with the DV and UV instrumentation, 3.3.4 is the place the operators would expect to find Specifications for this Function. As can be seen in proposed LCO 3.3.4, the appropriate actions for an inoperable load sequencer are the same as those for inoperable DV and UV actuation logic. It would not be appropriate to repeat these required actions again in 3.8.1. Requiring the supported diesel generator (DG) to be declared inoperable is not appropriate, since LCO 3.8.1 Condition B does not require the appropriate actions for an inoperable automatic load sequencer, such as, verify the other automatic load sequencer is operable and establish offsite path block loading capability for the associated 4 kV bus. No change have been made to the ITS submittal in response to this RAI.

3.3.4-7 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.

<u>334 Comment</u>:
See JFD 3.3X-312, move sequencers to LCO 3.8.1.c.

NMC Response:
Parts affected by this change:

See response to RAI 3.3.4-6.

3.3.3-2 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.

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

NMC Response:
Parts affected by this change:
Part C: CTS markup
Part D: DOC A3.3-66

The CTS has been revised to delete the statement, "As a minimum, the Required Channels will be restored prior to startup following the next refueling outage." The justification for this change is documented in a revised DOC A3.3-66. Also reference RAI 3.3.3-7.

3.3.3-3 A 068 A new note has been included in the Event Monitoring Table to clarify that each core exit thermocouple (CET) is a channel. This allows the terminology of the 3.3.3 Conditions to be applied to the CETs. The name of Function 15 has changed "Thermocouples" to "Temperature" to be consistent with NUREG-1431. Since these changes do not introduce any technical changes, these are administrative changes.

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

NMC Response:
Parts affected by this change:
None

CTS Table 3.15-1 Action Statement makes it very clear that PI considers each Core Exit Thermocouple (CET) to be a channel. Action Statement 5 states in part, " With the number of OPERABLE channels for the core exit thermocouples less than the Required Channels ... ." and Action Statement 6 continues by stating, " With less than two core exit thermocouple channels OPERABLE in one or more quadrants, ..." In addition, PI LAR dated, January 10, 1995 provides additional discussion about the CETs in relation to our core size and configuration. This LAR inter-relates and uses both the CETs and channels as being the same. To further clarify this point, the ITS was revised to be in closer compliance with NUREG-1431 terminology, however, PI made specific plant changes reflecting our terminology, operation, and design. One of these changes emphasizes that a CET is a channel.

3.3.M-02 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.

10/30/01 Comment:
Relocated Current Technical Specification. Current TS proposed to be relocated to licensee controlled documents are required to be evaluated for retention in ITS per 50.36(c)(2)(ii). The applicabilities of these items (page 47 of 72, ITS Part C) states the items are directly related to safety limits and limiting condition for operation. Provide a 50.36(c)(2)(ii) analysis to support a R-DOC NSHC classification.

NMC Response:
Parts affected by this change:
Part D: DOC LR3.3-115 replaced by R3.3-115

DOC LR3.3-115 has been rewritten as DOC R3.3-115 which provides the requested 10 CFR 50.36 evaluation of these instruments.

3.3.3-4 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.

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

NMC Response:
Parts affected by this change:
None

PI did not delete the CTS requirements for performing the Channel Checks, Channel Functional Tests, and Channel Calibrations for the hydrogen monitors. ITS SRs
3.3.3.1 and 3.3.3.2 specifically require performance of both the CHANNEL CHECK and CHANNEL CALIBRATION of the hydrogen monitors (ITS Function 11 of Table 3.3.3-1). The only difference between the ITS and CTS is the Frequencies in which the SRs
are performed. PI is more conservative than the ISTS in that the CTS Surveillance Frequencies are relocated into the TRM. Instead of just being in compliance with the ITST Surveillance testing requirements of the hydrogen monitors, the more conservative CTS Frequencies are maintained in the TRM. In addition, the ISTS does not require a COT (Functional) SR to be performed for the hydrogen monitors, however, PI maintains this CTS testing requirement in the TRM. Based on the above and relocation of CTS requirements, PI not only has incorporated the ISTS Surveillance requirements but maintained the more conservative Surveillance testing requirements of the CTS.

3.3.3-5 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.

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

NMC Response:
Parts affected by this change:
None

PI incorporated TSTF-244 which added SR 3.3.3.3. SR 3.3.3.3 requires performing a TADOT every refueling outage for the Penetration Flow Path Automatic Containment Isolation Valve (CIV) Position Indication. This TSTF, currently pending, was needed by the industry to more accurately reflect the testing performed on the Penetration Flow Path Automatic CIV position indication. The Penetration Flow Path Automatic CIV indication is driven by limit switches; therefore, performance of a CHANNEL CALIBRATION or CHANNEL CHECK is not appropriate. Performing a TADOT independently verifies the OPERABILITY of the Penetration Flow Path Automatic CIV position indication against the actual position of the valves. If the valves do not fully open or seat correctly, the limit switches will be adjusted if appropriate. When PI submitted the ITS, this TSTF was pending NRC review and approval. PI incorporated this TSTF based on its applicability to the Penetration Flow Path Automatic CIV position indication design and current PI operating

3.3.3-5 A 121 (continued)

practices. The CTS currently requires that a CHANNEL CHECK and CHANNEL CALIBRATION be performed on the Penetration Flow Path Automatic CIV position indication, however, a true CHANNEL CHECK or CHANNEL CALIBRATION could not be performed due to their design. Therefore, TSTF- 244 was introduced to amend the ISTS to more accurately reflect the testing performed on this system and its limit switches.

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

3.3.3-6

RAI 3.3.3-#1, page 3.3.3-3
Required Action F.1, G.1
Condition B
Provide revised required actions that are consistent with NUREG-1431 language for restoration actions, "Restore required channel(s) to OPERABLE status" and for condition statements, "One or more required CET channel(s) inoperable."

NMC Response:
Parts affected by this change:
Part B: LCO 3.3.3 Required Action F.1 and G.1
Part E: LCO 3.3.3 Required Action F.1 and G.1

Required Actions F.1 and G.1 have been revised conforming to NUREG-1431 language stating, "Restore required channel(s) to OPERABLE status". PI did not change the Condition statements as requested. Changing the Condition B as requested would deviate from PI CLB as approved by the NRC in LAR 112 dated September 7, 1994. PI needs to maintain CLB based on our core design. Changing the Condition statement to comply with NUREG-1431 language would be confusing and would not comply with PI design or licensing basis.

3.3.5-5

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

NMC Response:
Parts affected by this change:
Part B: LCO 3.3.5, Conditions B and C and Table 3.3.5-1 Footnote (b).
Part E: LCO 3.3.5, Conditions B and C and Table 3.3.5-1 Footnote (b).
Part F: JFD CL3.3-344

ITS LCO 3.3.5 Conditions B and C with associated Bases, Notes have been revised to be consistent with Table 3.3.5-1. In addition, while addressing this RAI, it was noted that Footnote (b) was not correct. The Footnote originally stated that during CORE ALTERATIONS "and" movement of irradiated fuel assemblies ... . This was revised to state that during CORE ALTERATIONS "or" movement of irradiated fuel assemblies ... . This change provides consistency with NUREG-1431, Condition C Note. In addition, JFD CL3.3-344 was revised to be consistent with the above changes.

	Cat.	No. 3.3-	Justification for Difference
33.M-03	CL	188	SR 3.3.1.7 and SR 3.3.1.8 as presented in NUREG-1431 have been modified in the PI ITS to be consistent with the testing in CTS and current practice at PI. Thus the appropriate COT SR for this function in MODEs 3, 4 and 5 (as modified) is SR 3.3.1.8. **10/30/01 Comment:** See Comments on CL3.3-166 and PA3.3-171 **NMC Response:** Parts affected by this change: None As stated in response to RAI 3.3.1-10 (Undocumented CTS Changes #10 page 49 of 72) submitted to the NRC by letter dated November 12, 2001, SR 3.3.1.7 and 3.3.1.8 were modified to be consistent with NUREG-1431 and CL3.3-188 is not used.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-6	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. **<u>332 Comment:</u>** **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
3.3.5-6	CL	233	(continued)

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

NMC Response:
Parts affected by this change:
None

The issue of Master and Slave relays have been discussed in RAI 3.3.2-20.

	Cat.	No. 3.3-	Justification for Difference
3.3.3-7	CL	283	New Actions Note 3, Condition A Note, Condition B, Condition F, Condition G and miscellaneous changes in ITS Conditions C, D, and H are included to implement the CTS requirements for CETS as required by License Amendments 112/105, issued September 7, 1994. Accordingly ITS Table 3.3.3-1 has been revised to not include separate functions for each CET quadrant. In addition, the associated Bases sections have been revised to be consistent with the Specification. **<u>333 Comment:</u>** **The allowance contained in this proposed change to NUREG-1431 already exists as LCO 3.0.1, which requires the LCO to be met during the MODES or other specified Conditions in the applicability. Revise the ITS by deleting ITS ACTIONS Note #3.** **NMC Response:** Parts affected by this change: Part B: LCO 3.3.3 Actions Note and associated Bases 3.3.3 Actions Note Part C: CTS Table TS 3.15-1 Part D: DOC A3.3-66 Part E: LCO 3.3.3 Actions Note and associated Bases 3.3.3 Actions Note Part F: JFD CL3.3-283 The CTS and DOC A3.3-66 have been revised as discussed in RAI 3.3.3-2. In addition, the ITS, associated Bases, and JFD CL3.3-283 have been revised by deleting this Action Note.

	Cat.	No. 3.3-	Justification for Difference
3.3.3-8	CL	284	The guidance for submitting a report to the NRC is included in this specification, 3.3.3, which is consistent with CTS requirements. This format facilitates operator use of the ITS. Bases 3.3.3 Actions C.1 and J.1 have also been revised to be consistent with the subject change. Since reference to Chapter 5 is not included, approved TSTF-37, Revision 2 is NOT applicable and is not included. **<u>333 Comment</u>:** **The proposed change to STS is a generic reformatting of NUREG-1431. Revise the ITS to adopt the STS PAM required actions to immediately initiate actions in accordance with Chapter 5 PAM Reporting requirements. Alternatively, use of this format for PI-ITS requires an NEI approved TSTF or provide documentation to show that adopting the STS PAM reporting requirements is burdensome, does not maintain safety, or decreases efficiency or effectiveness of plant operations. TSTF-37, Rev. 2 is not applicable to this discussion because the Administrative Control TS PAM reporting requirement were only <u>renumbered</u> by TSTF-37.** **NMC Response:** Parts affected by this change: Part B: LCO 3.3.3, Required Action C.1, Required Action J.1, and associated Bases Specification 5.6.8 Part C: Table 3.15-1, Action Statement (a)1 and 3 and Specification 5.6.F. Part D: DOC A3.3-144, A5..-37 Part E: LCO 3.3.3, Required Action C.1, Required Action J.1, and associated Bases Specification 5.6.8 Part F: Deletes JFD CL5.0-82 and JFD CL3.3-284 Part G: No Significant Hazards Determination (NSHD) PI revised LCO 3.3.3 Required Actions C.1 and J.1 and associated Bases to state, "Initiate action in accordance with Specification 5.6.8." in compliance with NUREG-1431. As a result, Specification 5.6.8 was also added to the ITS. This change deletes JFD CL3.3-284.

	Cat.	No. 3.3-	Justification for Difference
3.3.3-9	PA	287	The Surveillance Requirements Note requires SR 3.3.3.1 and 3.3.3.2 to apply to all EM (PAM) functions. However, these SRs are not applicable to the Containment Isolation Valve Position instrumentation. NUREG-1431 which applies to the Westinghouse plants defines a separate SR, the TADOT, for this type of equipment. Thus, the Surveillance Requirements Note has been modified and SR 3.3.3.3 has been included to require performance of a TADOT on the Containment Isolation Valve Position instrumentation. This change is consistent with proposed TSTF-244, Rev 0. **<u>333 Comment</u>:** **See DOC A3.3-121 comment for addition of SR 3.3.3.3. Revise SURVEILLANCE REQUIREMENTS, Note by replacing "Item" with "Function" to establish consistent use of Table 3.3.3-1 column header designations.** **NMC Response:** Parts affected by this change: Part B: LCO 3.3.3, SR Note and associated Bases Part E: LCO 3.3.3, SR Note and associated Bases Surveillance Requirement Note has been revised replacing the word "Item" with "Function".

	Cat.	No. 3.3-	Justification for Difference
3.3.4-8	X	312	The automatic load sequencer function has been included in the ITS. This function is not anywhere in the PI CTS and is not in this specification in NUREG-1431. However, the load sequencers are more appropriate in this specification than they are in 3.8.1 since they are digital logic associated with maintaining the 4 kV safeguards buses operable. Due to the addition of the load sequencers, an introductory clause has been included in the LCO to make it read correctly. The addition of the load sequencers results in changes in NUREG-1431 Condition C and the addition of two new conditions. These changes make the specification correct for the PI logic for this instrumentation and are consistent with current plant practice when a load sequencer is out of service. In addition, the Bases have been revised to be consistent with the LCO. **<u>334 Comment</u>:** **Automatic load sequencer function is included in NUREG-1431 LCO 3.8.1.C. Revise the ITS to adopt the NUREG format and content for load sequencer operability requirements.** **NMC Response:** Parts affected by this change: See response to RAI 3.3.4-6.

	Cat.	No. 3.3-	Justification for Difference
3.3.4-9	CL	313	The bracketed number of channels has been replaced by the PI specific number of channels. The NUREG-1431 loss of voltage function has been replaced with the PI undervoltage function. **<u>334 Comment</u>:** **CTS shows total required channels to be 4 per Bus. Revise the ITS to retain CTS requirements for 4 required channels per Bus of loss of voltage instrumentation and 4 required channels per Bus of undervoltage instrumentation in the LCO.** **NMC Response:** Parts affected by this change: See response to RAI 3.3.4-2.
3.3.4-10	CL	315	Required Action A.1 and associated Bases is modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change is consistent with CTS Table 3.5-2B, Action 31. **<u>334 Comment</u>:** **Revise ITS to adopt NUREG-1431 Condition A, One or more Functions with one channel per bus inoperable." The one or more language allows separate Condition A clocks to be started for each bus with an inoperable channel.** **NMC Response:** Parts affected by this change: Part B: Final ITS pages Part E: ISTS markup Part F: JFD CL3.3-315 Condition A statement has been restored to NUREG-1431 wording. A Note has also been added to Condition A and the associated Bases to indicate that this Condition only applies to Functions a and b.

	Cat.	No. 3.3-	Justification for Difference
3.3.4-11	CL	316	This condition is not included since the required action is not appropriate for this condition at PI. The Bases has also been revised to be consistent with the LCO. **<u>334 Comment</u>:** **Revise ITS to include NUREG-1431 Condition B modified to be consistent with CTS Action 32 for two inoperable channels per bus.** **NMC Response:** Parts affected by this change: See response to RAI 3.3.4-2.
3.3.4-12	CL	317	ITS Required Action B.1 and associated Bases have been modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change implements CTS Table 3.5-2B, Action 33 except that the actions more appropriately enter the Conditions for the load sequencer, now that they are included in the TS, than for the diesel generator. **<u>334 Comment</u>:** **ITS Conditon B does not model CTS requirements or NUREG-1431 requirements for Function a or b with two inoperable channels per bus or for requirements for one inoperable channel per bus not met. Revise ITS to incorporate CTS Action 33 for the number of inoperable channels 3 or more less than total channel requirements.** **NMC Response:** Parts affected by this change: As discussed in the response to RAI 3.3.4-2, the ITS Condition B requires actions equivalent to CTS Table 3.5-2B Action 33 to be entered when 2 CTS channels or 3 CTS channels are inoperable, depending on the logic pair in which the inoperable channels occur.

	Cat.	No. 3.3-	Justification for Difference
3.3.4-13	CL	322	ITS SR 3.3.4.1 and associated Bases have been modified to a COT to be consistent with CTS requirements for this instrumentation.

334 Comment:
Explain the mismatch between this JFD and the proposed ITS SRs. The Actuation Logic Test (ALT), SR 3.3.4.2, is not in ITS. Include detailed discussion to justify that the CTS "Channel Functional Test" is equivalent to a COT and not the NUREG-1431 TADOT.

NMC Response:
Parts affected by this change:
Part F: JFD CL3.3-323

Per the request of the NRC on January 9, 2001, a new SR, 3.3.4.2, was included in the ITS. This SR which requires an ALT of the load sequencer logic was included in the Revision 1 pages submitted to the NRC on March 6, 2001. JFD CL3.3-323 has been revised to correctly reference ITS SR 3.3.4.3.

CTS requires a Channel Functional Test for the degraded voltage (DV) and undervoltage (UV) relays. Channel Functional Test is an all inclusive test requirement in CTS which in ITS can mean an Actuation Logic Test (ALT), Channel Operational Test (COT) or a Trip Actuating Device Operational Test (TADOT) depending on the function and nature of the equipment to be tested. The ITS definition of a COT states in part, "A COT shall be the injection of a simulated or actual signal into the channel as close to the sensor output as practicable . . ." and the ITS definition of a TADOT states in part, "A TADOT shall consist of operating the trip actuating device and verifying the OPERABILITY of all devices in the channel required for trip actuating device OPERABILITY." These relays must sense the voltage levels on their bus and send a signal to the load sequencer logic. This may differ from other plants since Prairie Island installed state-of-the-art 4 kV bus voltage instrumentation in the early 1990s. Generally TADOTs have been required for devices that are either open or closed, or on or off such as breakers, limit switches which indicate open or closed, or manual initiating switches. It is NMC's position at Prairie Island that the DV and UV relays look more like sensors than trip actuating

	Cat.	No. 3.3-	Justification for Difference
3.3.4-14	CL	323	ITS SR 3.3.4.2 is modified to include the appropriate terminology and Allowable Values for the PI instrumentation. These values are taken from CTS Table 3.5-1 except that the degraded voltage time delays have been modified based on test experience since these were first included in the CTS. **<u>334 Comment & Beyond Scope Issue</u>:** **Explain the basis for the ITS time delay nomenclature. Relate the discussion to the FSAR accident analysis. CTS nominal percent bus voltage becomes ITS Allowable Value bus voltage. This change is a beyond scope review item for the staff.** **NMC Response:** Parts affected by this change: None NUREG-1431 does not provide titles or descriptions of the time delays, so ITS has included the description of the undervoltage (UV) time delay and degraded voltage (DV) time delays. This additional description is useful because the Prairie Island CTS include two time delays for degraded voltage. The first time delay allows some time for the bus voltage to correct itself before the degraded voltage relays input to the load sequencers. The second time delay allows the load sequencer to correct the voltage through the alternate offsite source before the diesel generator (DG) is started. Additional discussion of the UV and DV time delays and allowable values is provided in USAR Section 8.4.2. These descriptive titles are included in the ITS to eliminate confusion on why there are two time delays provided in TS. The USAR accident analyses assume through the design, operation, reliability and redundancy of the safeguards electrical systems that power is available to the engineered safeguards features. The 4 kV bus voltage instrumentation time delays and allowable values are part of the design, operation and reliability of this system and therefore the USAR accident analyses do not directly consider the UV and DV time delays or allowable values. Appropriate time delay is included in the USAR accident analyses for loading the diesel generators.

	Cat.	No. 3.3-	Justification for Difference
3.3.4-14	CL	323	(continued)

The CTS 4 kV Safeguards Busses Voltage Restoration voltage setpoint values provided in CTS Table 3.5-1 have been evaluated using the PINGP Setpoint Methodology, submitted to the NRC by letter dated March 6, 2001, and are presented in ITS as the allowable values in ITS SR 3.3.4.3. To be consistent with the presentation and format of NUREG-1431, the CTS percentage limits have been multiplied by the nominal bus voltage, 4160 V, to calculate the ITS voltage limits. The time delays provided in ITS SR 3.3.4.3 are the same as those provided in CTS except that the time range for degraded voltage DG start has been narrowed as discussed in DOC M3.3-009. It is NMC's position that ISTS changes discussed in JFD CL3.3-323 are not beyond scope issues. No changes have been made to the ITS submittal in response to this RAI.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-7	TA	332	This change incorporates TSTF-161, Rev. 1 in that the Applicable Modes or Other Specified Conditions are specified in the Table. However, for PI the Containment Ventilation Isolation Instrumentation is not required to be operable when the Containment Inservice Purge System is blind flanged. Thus, the Manual Containment Isolation, Safety Injection and Manual Containment Spray Function input to Containment Ventilation Isolation is not required when the Containment Inservice Purge System is blind flanged. Therefore the "all" has been removed from the note referencing to LCO 3.3.2 and the appropriate Applicable Modes or Other Specified Conditions are specified in the Table. Approved TSTF-52, Rev. 2 has NOT been incorporated, since plant evaluations and commitments require the Containment Ventilation Isolation Instrumentation to be operable during CORE ALTERATIONS. **<u>335 Comment</u>:** **Explain the meaning of TSTF-52, Rev. 2 as applied to the proposed change to STS.** **NMC Response:** Parts affected by this change: Part F: JFD TA3.3-332 The referenced statement for TSTF-52 has been corrected to reference TSTF-51.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-8	CL	333	"Channel" has been changed to "train" since the PI design includes two trains of instrumentation. The Condition A Completion Time of 4 hours is appropriate since the other train remains operable, the system can be manually actuated and there will be heightened awareness of containment conditions any time this system is in operation due to its infrequent use, and there is a low probability of an accident during this time. For clarity, an exception is made in Conditions B and C to assure that operators do not enter both Conditions A and either Condition B or C when one train is inoperable. Also "or more" is deleted since there are only two radiation monitoring trains. Clarification of the channel to train relationship is provided in the Bases. **<u>335 Comment</u>:** **Revise the ITS to adopt NUREG-1431 Condition A and Required Action A.1; Condition B and Required Action B.1; Condition C and Required Actions C.1 and C.2, and Table 3.3.5-1, High Radiation in Exhaust required channels or provide a design basis justification for deviating from the NUREG format and content. The staff notes that retaining the CTS channel designation should not prove to be a hardship because Generic Letter 91-18 should be used to interpret the affect that inoperable supporting equipment has on TS required channels.** **NMC Response:** Parts affected by this change: None PI chooses to use the terminology "train" for the subject LCO Conditions since it is currently used at PI. Trains in this application has plant specific meaning. Introducing or changing train to channels to be consistent with NUREG-1431, would be confusing to plant personnel and could lead to potential errors. Therefore, PI will retain plant specific terminology and continue to use train in this case.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-9	CL	337	The name of this function is modified to agree with the PI design. Since the relays are the actuation logic, the name is "automatic actuation relay logic". **<u>335 Comment</u>:** **See DOC A3.3-035.** **NMC Response:** Parts affected by this change: None See response to RAI 3.3.2-5.
3.3.5-10	CL	341	The Containment Radiation function has been renamed and reformatted to be consistent with CTS except that the channel check will be more frequent than CTS. The individual types of radiation monitors are not included since these are part of the radiation monitoring trains. Since the Allowable Value is lengthy and complex, it is presented as a footnote to the Table. **<u>335 Comment</u>: New BSI** **The CTS trip setpoint becomes the ITS Allowable Value. Provide safety basis discussion to document the CTS changes proposed for ITS.** **NMC Response:** Parts affected by this change: None See response to RAI 3.3.2-15.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-11	CL	343	New functions, Table 3.3.5-1 Function 5, Safety Injection, and Function 6, Manual Containment Spray, are included to be consistent with the plant design and CTS requirements. **<u>335 Comment</u>:** **LCO 3.3.5 Applicable Modes mismatch with the Applicable Modes for the ESFAS Functions referenced in ITS Table 3.3.2-1. Reconcile these differences.** **NMC Response:** Parts affected by this change: Part B: LCO 3.3.5, Table 3.3.5-1. Part E: LCO 3.3.5, Table 3.3.5-1. Part F: JFD CL3.3-343 ITS Table 3.3.5-1 Functions 4, 5, and 6 Applicable MODES or other specified Conditions have been revised to delete the specific MODES, making them consistent with the MODES in Table 3.3.2-1.

	Cat.	No. 3.3-	Justification for Difference
3.3.5-12	CL	344	New notes, Note a and Note b, are included in ITS Table 3.3.5-1 and modify the modes of applicability to agree with CTS requirements. This isolation function is only required to be operable when containment integrity is required or during movement of irradiated fuel assemblies within containment and the Containment Inservice Purge System is not isolated with blind flanges. **<u>335 Comment</u>:** **Revise the proposed ITS, as applicable, to require Containment Ventilation Isolation Instrumentation to be operable when the Containment Inservice Purge System "is not isolated with blind flanges.** **NMC Response:** Parts affected by this change: None See response to RAI 3.3.5-5.

	Cat.	No. 3.3-	Justification for Difference
3.3.M-4	CL	352	NUREG-1431 Specification 3.3.7, Control Room Emergency Filtration System Actuation Instrumentation, is not included in the PI ITS. The PI control ventilation system does not have an instrumentation system with concomitant logic that fills this function; thus this specification is unnecessary and would not serve a useful purpose. Since this specification is not included, the applicable portions of approved travelers TSTF-161 and 205 are not incorporated. **10/30/01 337 Comment**: Show that PI analysis assumptions for operation of control ventilation system does not rely on manual or any installed instrumentation system to perform a safety function. **NMC Response:** Parts affected by this change: None The Prairie Island (PI) control room special ventilation system does rely on manual and installed instrumentation to perform its safety function. The control room special ventilation system actuation instrumentation is not identified as a separate system in the PI CTS. This actuation equipment does not have associated logic which is a defining feature for other ITS Section 3.3 instrumentation systems. This actuation equipment is included in ITS LCO 3.7.10 operability requirements. Bases 3.7.10 LCO discussion states, "A CRSVS (control room special ventilation system) train is OPERABLE when the associated: d) Instrumentation, including associated radiation monitor for starting the cleanup fan, is OPERABLE . . ." No changes have been made to the ITS submittal in response to this RAI.

	Cat.	No. 3.3-	Justification for Difference
3.3.4-15	CL	353	NUREG-1431 Specification 3.3.4 and associated Bases are not included in the PI ITS. The PI CTS do not contain any requirements for the remote shutdown system. PI uses local stations throughout the plant for safe shutdown outside the control room. The safe shutdown systems at PI are designed to meet AEC draft GDC 11 requirements and have been inspected by the NRC in Fire Protection Program inspections. As a result of this deletion, approved travelers TSTF-19, TSTF-205, and TSTF-266 have not been incorporated. **<u>334 Comment</u>:** **Provide analysis and discussion to show that AEC draft GDC 11 shutdown system components used at local stations throughout the plant for safe shutdown outside the control room do not meet 10 CFR 50.36, Criterion 3 and therefore are not required to be included in ITS.** **NMC Response:** Parts affected by this change: None Prairie Island does not have a Remote Shutdown System as described in NUREG-1431 Bases for LCO 3.3.4. The Prairie Island CTS does not include any Specifications which would require operability of instrumentation or controls associated with the capability to remotely shutdown the units. Therefore, NMC is not obligated to include in ITS Specifications for a Remote Shutdown System or Specifications for the shutdown components used at local stations in the plant. The other two-loop Westinghouse plants of similar design and vintage to Prairie Island which have converted to ITS, Ginna and Point Beach, do not have Specifications for a Remote Shutdown System or other instrumentation or controls associated with the capability to remotely shutdown the units. 10 CFR 50.36 Criterion 3 applies to "A structure, system or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier." Events which cause evacuation of the control room are not assumed to occur during a design basis accident or transient which

	Cat.	No. 3.3-	Justification for Difference
3.3.M-05	CL	354	NUREG-1431 Specification 3.3.8, Fuel Building Air Cleanup System Actuation Instrumentation, is not included in the PI ITS. The PI spent fuel pool special ventilation system does not have an instrumentation system with concomitant logic that fills this function; thus this specification is unnecessary and would not serve a useful purpose. Since this specification is not included, the applicable portions of approved traveler TSTF-205 are not incorporated. **10/30/01 338 Comment**: Show that PI analysis assumptions for operation of a Fuel Building Air Cleanup System does not rely on manual or any installed instrumentation system to perform a safety function. **NMC Response:** Parts affected by this change: None The Prairie Island (PI) spent fuel pool special ventilation system does rely on radiation monitors to perform its safety function. (This system does not have manual actuation capability) The spent fuel pool special ventilation system radiation monitors are not identified as a separate system in the PI CTS. The radiation monitors do not have associated logic which is a defining feature for other ITS Section 3.3 instrumentation systems. These radiation monitors are included in ITS LCO 3.7.13 operability requirements. Bases 3.7.13 LCO discussion states, "An SFPSVS (spent fuel pool special ventilation system) train is considered OPERABLE when its associated: d) Spent Fuel Pool Normal Ventilation train radiation monitor is OPERABLE . . ." No changes have been made to the ITS submittal in response to this RAI.

	Cat.	No. 3.3-	Justification for Difference
3.3.M-6	CL	355	NUREG-1431 Specification 3.3.9, Boron Dilution Protection System Actuation Instrumentation, is not included in the PI ITS. PI does not have an automatic system which performs this function; thus this specification is unnecessary. Since this specification is not included, the applicable portions of approved travelers TSTF-135 and 205 are not incorporated.

10/30/01 339 Comment:
Show that PI analysis assumptions for operation of a Boron Dilution Protection System does not rely on manual or any installed instrumentation system to perform a safety function.

NMC Response:
Parts affected by this change:
None

Prairie Island (PI) does not have Technical Specifications in the CTS specifically for actuating a boron dilution mitigation system. PI does not have a system solely for this purpose.

The analysis of boron dilution events is presented in USAR Section 14.4. PI operators depend on various instrumentation to indentify and terminate a boron dilution event. However PI does not have a manual or instrumentation "system" specifically to perform this function. As discussed in the USAR, some instrumentation required by ITS LCO 3.3.1 may actuate during a dilution event if the event initiates when the reactor is critical. When the reactor is subcritical, operators have various instruments available to indicate a boron dilution event is in progress. One of the primary indications is source range nuclear instrumentation with visual and audible indication in the control room. This instrumentation is required by ITS LCO 3.9.3.
No changes have been made to the ITS submittal in reponse to this RAI.

Cat. No. 3.3-	Justification for Difference
3.3.M-7	We have completed our review of the Prairie Island Nuclear Generating Plant's (PINGP) instrument setpoint methodology which was submitted with their letter dated March 6, 2001 and need following information to complete our review: By letter dated March 6, 2001, Nuclear Management Company (the licensee) submitted supplement to license amendment request dated December 11, 2000, related to improved technical specification conversion. By attachment 1 to this letter, the licensee provided the Engineering Design Standard for instrument setpoint/uncertainty calculations and by attachments 2 and 3, the licensee provided two examples of the calculations. The licensee stated that their setpoint methodology is based on ISA Standard S67.04- 1987 and the two loop group setpoint methodology developed be Tenera, L. P. The licensee has not discussed any deviations from ISA Standard S67.04-1987. Also; the NRC has not endorsed ISA S67.04-1987 by a regulatory guide. ISA S67.04-1982 and ISA S67.04-1994 versions have been endorsed by RG 1.105 rev.2 and rev. 3 respectively. The NRC staff do not recall approving the setpoint methodology developed by Tenera LP. Based on this, in order for the staff to determine the acceptability of your setpoint methodology, provide the discussion on how you meet the RG 1.105, rev. 2 or rev. 3. Also, the Engineering Design Standard rely on vendor information for most of the instrument uncertainties. Provide a discussion on the criteria used to determine the acceptability of the vendor data and what steps are taken if vendor data is not available. **NMC Response:** PINGP Response to NRC RAI on PINGP's Instrument Setpoint Methodology *NRC: "... in order for the staff to determine the acceptability of your setpoint methodology, provide the discussion on how you meet the RG 1.105 rev. 2 or rev. 3."*

Cat. No. 3.3-	Justification for Difference
3.3.M-7	(continued) Prairie Island Nuclear Generating Plant (PINGP) is not currently committed to Regulatory Guide (RG) 1.105 Rev. 2 or Rev. 3. However, we believe that our Instrument Setpoint Methodology meets the intent of RG 1.105 Rev. 3, based on the following: - NRC RG 1.105 Rev. 3 endorses ISA S67.04-1994 Part I (with four exceptions and clarifications). Although PINGP's Instrument Setpoint Methodology is based on ISA S67.04-1987 (which reflected current industry practice when the Methodology was developed), there are few differences between S67.04-1987 and S67.04-1994 Part I, and PINGP's Instrument Setpoint Methodology meets the requirements of the 1994 version. - NRC RG 1.105 Rev. 3 section C.1 provides clarification on the criterion for combining uncertainties in determining a trip setpoint and its allowable values, specifically stating that "The 95/95 tolerance limit is an acceptable criterion for uncertainties." By using the square-root-sum-of-squares (SRSS) method to combine uncertainties that are random, normally distributed and independent, and algebraically combining those uncertainties that are non-random, not normally distributed, or are dependent, PINGP is using a method that is generally accepted as providing a 95% probability combined uncertainty value. PINGP instrument setpoint calculations are performed with the tacit assumption that vendor reference accuracy values are provided with 95% probability and 95% confidence.

Cat. No. 3.3-	Justification for Difference
3.3.M-7	(continued)

Where practical, PINGP has compared vendor reference accuracy values to Westinghouse-provided instrument channel accuracies and found the vendor accuracy values to be equal or conservative to the channel accuracies. In addition, PINGP has performed drift analyses for a number of components (including various Foxboro bistable models) and has generally found that vendor-provided reference accuracy values bound plant-specific drift for these components.

- NRC RG 1.105 Rev. 3 section C.2 provides clarification on compliance with standards and codes referenced in sections 7 and 8 of ISA S67.04-1994 Part I. To the best of our knowledge, PINGP is in compliance with this clarification.

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- NRC RG 1.105 Rev. 3 section C.3 concerns ISA S67.04-1994 section 4.3, which states that the limiting safety system setting (LSSS) may be maintained in technical specifications or appropriate plant procedures. The exception states that "the LSSS must be specified as a technical-specification-defined limit in order to satisfy the requirements of 10 CFR 50.36." PINGP's LSSS values (Allowable Values) are maintained in the Prairie Island Improved Technical Specifications.

- NRC RG 1.105 Rev. 3 section C.4 states that "the allowable value relationship to the setpoint methodology and testing requirements in the technical specifications must be documented." At PINGP, this relationship is documented in Improved Technical Specification Bases for Specification 3.3.1.

NRC: "Provide a discussion on the criteria used to determine the acceptability of the vendor data and what steps are taken if vendor data is not available."

Cat. No. 3.3-	Justification for Difference
3.3.M-7	(continued) As stated above, where practical, PINGP has compared vendor reference accuracy values to Westinghouse-provided instrument channel component accuracies and found the vendor accuracy values to be equal or conservative to the channel component accuracy. In addition, PINGP has performed drift analyses for various components and has generally found that vendor data bounds plant-specific drift for these components. When vendor data is not available, a plant-specific drift analysis is performed to establish uncertainties for the affected components.

Prairie Island Nuclear Generating Plant

Attachment 2

to
Supplement dated January 31, 2002
to License Amendment Request dated December 11, 2000
Conversion to Improved Technical Specifications (ITS)

Page List by RAI Q

RAI Q #	Package #	Part	Page #
3.3.3-01	3.3	C	68 of 72
3.3.3-01	3.3	C	71 of 72
3.3.3-01	3.3	D	79
3.3.3-01	3.3	G	1
3.3.3-02	3.3	C	46 of 72
3.3.3-02	3.3	D	34
3.3.3-06	3.3	B	3.3.3-3
3.3.3-06	3.3	E	3.3.3-3
3.3.3-07	3.3	B	3.3.3-1
3.3.3-07	3.3	B	B 3.3.3-13
3.3.3-07	3.3	E	3.3.3-1
3.3.3-07	3.3	E	B 3.3.3-19
3.3.3-07	3.3	F	34
3.3.3-08	3.3	B	3.3.3-2
3.3.3-08	3.3	B	3.3.3-4
3.3.3-08	3.3	B	B 3.3.3-14
3.3.3-08	3.3	B	B 3.3.3-17
3.3.3-08	3.3	C	45 of 72
3.3.3-08	3.3	D	79
3.3.3-08	3.3	E	3.3.3-2
3.3.3-08	3.3	E	3.3.3-4
3.3.3-08	3.3	E	B 3.3.3-20
3.3.3-08	3.3	E	B 3.3.3-23
3.3.3-08	3.3	F	35
3.3.3-08	3.3	G	1
3.3.3-08	5.0	B	5.0-27
3.3.3-08	5.0	C	35 of 41
3.3.3-08	5.0	D	11
3.3.3-08	5.0	E	5.0-36
3.3.3-08	5.0	F	6
3.3.3-08	5.0	G	1
3.3.3-09	3.3	B	3.3.3-5
3.3.3-09	3.3	B	B 3.3.3-18
3.3.3-09	3.3	E	3.3.3-5
3.3.3-09	3.3	E	B 3.3.3-23
3.3.4-01	3.3	C	32 of 72
3.3.4-01	3.3	D	86
3.3.4-01	3.3	G	1

RAI Q #	Package #	Part	Page #
3.3.4-02	3.3	B	B 3.3.4-4
3.3.4-02	3.3	C	32 of 72
3.3.4-02	3.3	E	B 3.3.4-5
3.3.4-10	3.3	B	3.3.4-1
3.3.4-10	3.3	B	B 3.3.4-5
3.3.4-10	3.3	E	3.3.4-2
3.3.4-10	3.3	E	B 3.3.4-7
3.3.4-10	3.3	F	39
3.3.4-13	3.3	F	41
3.3.5-02	3.3	C	41 of 72
3.3.5-02	3.3	C	59 of 72
3.3.5-02	3.3	D	80
3.3.5-02	3.3	D	81
3.3.5-02	3.3	D	82
3.3.5-02	3.3	D	83
3.3.5-02	3.3	D	84
3.3.5-02	3.3	D	85
3.3.5-02	3.3	G	1
3.3.5-02	3.3	G	3
3.3.5-03	3.3	B	3.3.5-3
3.3.5-03	3.3	B	3.3.5-5
3.3.5-03	3.3	B	B 3.3.5-6
3.3.5-03	3.3	C	33 of 72
3.3.5-03	3.3	C	34 of 72
3.3.5-03	3.3	C	39 of 72
3.3.5-03	3.3	D	29
3.3.5-05	3.3	B	3.3.5-2
3.3.5-05	3.3	E	3.3.5-2
3.3.5-05	3.3	E	3.3.5-3
3.3.5-05	3.3	E	3.3.5-7
3.3.5-05	3.3	E	B 3.3.5-8
3.3.5-05	3.3	F	45
3.3.5-07	3.3	F	42
3.3.5-11	3.3	B	3.3.5-5
3.3.5-11	3.3	E	3.3.5-6
3.3.5-11	3.3	E	3.3.5-7
3.3.M-01	3.3	C	7 of 72
3.3.M-01	3.3	C	69 of 72

RAI Q #	Package #	Part	Page #
3.3.M-01	3.3	D	5
3.3.M-01	3.3	D	86
3.3.M-01	3.3	D	87
3.3.M-01	3.3	D	88
3.3.M-01	3.3	G	5
3.3.M-02	3.3	C	68 of 72
3.3.M-02	3.3	C	69 of 72
3.3.M-02	3.3	D	52
3.3.M-02	3.3	D	53
3.3.M-02	3.3	D	54
3.3.M-02	3.3	D	55
3.3.M-02	3.3	D	56
3.3.M-02	3.3	D	57
3.3.M-02	3.3	D	58
3.3.M-02	3.3	D	59
3.3.M-02	3.3	D	60
3.3.M-02	3.3	D	61
3.3.M-02	3.3	D	62
3.3.M-02	3.3	D	63
3.3.M-02	3.3	D	64
3.3.M-02	3.3	D	65
3.3.M-02	3.3	D	66
3.3.M-02	3.3	G	5
3.3.M-02	3.3	G	7
E20	3.0	B	3.0-6
E20	3.0	B	B 3.0-16
E20	3.0	B	B 3.0-17
E20	3.0	C	6 of 6
E20	3.0	D	10
E20	3.0	D	11
E20	3.0	E	3.0-7
E20	3.0	E	B 3.0-18
E20	3.0	E	B 3.0-19
E20	3.0	E	B 3.0-20
E20	3.0	F	5
E20	3.0	G	9
E20	3.0	G	10
E21	3.3	B	3.3.2-10

RAI Q #	Package #	Part	Page #
E21	3.3	B	B 3.3.2-19
E21	3.3	B	B 3.3.2-20
E21	3.3	B	B 3.3.2-21
E21	3.3	C	6 of 72
E21	3.3	C	28 of 72
E21	3.3	C	60 of 72
E21	3.3	D	10
E21	3.3	E	3.3.2-19
E21	3.3	E	B 3.3.2-38
E21	3.3	E	B 3.3.2-39
E21	3.3	F	27
E21	3.3	F	88
E21	3.3	G	1
Repagination	3.0	B	B 3.0-18
Repagination	3.0	B	B 3.0-19
Repagination	3.0	B	B 3.0-20
Repagination	3.0	E	3.0-6
Repagination	3.0	E	3.0-8
Repagination	3.0	E	B 3.0-21
Repagination	3.0	E	B 3.0-22
Repagination	3.0	E	B 3.0-23
Repagination	3.0	F	4
Repagination	3.0	G	11
Repagination	3.3	B	B 3.3.2-22
Repagination	3.3	B	B 3.3.2-23
Repagination	3.3	B	B 3.3.2-24
Repagination	3.3	B	B 3.3.2-25
Repagination	3.3	B	B 3.3.2-26
Repagination	3.3	B	B 3.3.2-27
Repagination	3.3	B	B 3.3.2-28
Repagination	3.3	D	35
Repagination	3.3	D	36
Repagination	3.3	D	67
Repagination	3.3	D	68
Repagination	3.3	D	69
Repagination	3.3	D	70
Repagination	3.3	D	71
Repagination	3.3	D	72

RAI Q #	Package #	Part	Page #
Repagination	3.3	D	73
Repagination	3.3	D	74
Repagination	3.3	D	75
Repagination	3.3	D	76
Repagination	3.3	D	77
Repagination	3.3	D	78
Repagination	3.3	E	3.3.2-20
Repagination	3.3	E	B 3.3.2-40
Repagination	3.3	E	B 3.3.2-41
Repagination	3.3	E	B 3.3.2-42
Repagination	3.3	E	B 3.3.2-43
Repagination	3.3	E	B 3.3.2-44

Prairie Island Nuclear Generating Plant

Attachment 3

to
Supplement dated January 31, 2002
to License Amendment Request dated December 11, 2000
Conversion to Improved Technical Specifications (ITS)

Revision 7 Change Pages

Improved Technical Specifications
Supplement dated 1/31/02

Revision 7 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
3.0	B	3.0-6	12/11/00	3.0	B	3.0-6	1/2/02
	B	B 3.0-16	12/11/00		B	B 3.0-16	1/2/02
	B	B 3.0-17	12/11/00		B	B 3.0-17	1/2/02
	B	B 3.0-18	12/11/00		B	B 3.0-18	12/11/00
	B	B 3.0-19	12/11/00		B	B 3.0-19	12/11/00
	B	---	---		B	B 3.0-20	12/11/00
	C	6 of 6	---		C	6 of 6	7
	D	10	12/11/00		D	10	1/2/02
	D	---	---		D	11	1/2/02
	E	3.0-6			E	3.0-6	
	E	3.0-7			E	3.0-7	7
	E	---			E	3.0-8	None
	E	B 3.0-18			E	B 3.0-18	7
	E	B 3.0-19			E	B 3.0-19	7
	E	B 3.0-20			E	B 3.0-20	7
	E	B 3.0-21			E	B 3.0-21	None
	E	B 3.0-22			E	B 3.0-22	None
	E	---	---		E	B 3.0-23	None
	F	4	12/11/00		F	4	12/11/00
	F	---	---		F	5	1/2/02
	G	9	12/11/00		G	9	1/2/02
	G	---	---		G	10	1/2/02
	G	---	---		G	11	12/11/00
3.3	B	3.3.2-10	5/1/01	3.3	B	3.3.2-10	1/2/02
	B	3.3.3-1	12/11/00		B	3.3.3-1	1/2/02
	B	3.3.3-2	12/11/00		B	3.3.3-2	1/2/02
	B	3.3.3-3	12/11/00		B	3.3.3-3	1/2/02
	B	3.3.3-4	12/11/00		B	3.3.3-4	1/2/02
	B	3.3.3-5	12/11/00		B	3.3.3-5	1/2/02
	B	3.3.4-1	12/11/00		B	3.3.4-1	1/2/02
	B	3.3.5-2	12/11/00		B	3.3.5-2	1/2/02
	B	3.3.5-3	12/11/00		B	3.3.5-3	1/2/02
	B	3.3.5-5	12/11/00		B	3.3.5-5	1/2/02
	B	B 3.3.2-19	12/11/00		B	B 3.3.2-19	1/2/02
	B	B 3.3.2-20	12/11/00		B	B 3.3.2-20	1/2/02
	B	B 3.3.2-21	12/11/00		B	B 3.3.2-21	1/2/02
	B	B 3.3.2-22	12/11/00		B	B 3.3.2-22	12/11/00
	B	B 3.3.2-23	12/11/00		B	B 3.3.2-23	12/11/00
	B	B 3.3.2-24	12/11/00		B	B 3.3.2-24	12/11/00
	B	B 3.3.2-25	12/11/00		B	B 3.3.2-25	12/11/00

Improved Technical Specifications
Supplement dated 1/31/02

Revision 7 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
3.3	B	B 3.3.2-26	12/11/00	3.3	B	B 3.3.2-26	12/11/00
	B	B 3.3.2-27	9/4/01		B	B 3.3.2-27	12/11/00
	B	B 3.3.2-28	12/11/00		B	B 3.3.2-28	9/4/01
	B	B 3.3.3-13	12/11/00		B	B 3.3.3-13	1/2/02
	B	B 3.3.3-14	12/11/00		B	B 3.3.3-14	1/2/02
	B	B 3.3.3-17	12/11/00		B	B 3.3.3-17	1/2/02
	B	B 3.3.3-18	12/11/00		B	B 3.3.3-18	1/2/02
	B	B 3.3.4-4	12/11/00		B	B 3.3.4-4	1/2/02
	B	B 3.3.4-5	12/11/00		B	B 3.3.4-5	1/2/02
	B	B 3.3.5-6	12/11/00		B	B 3.3.5-6	1/2/02
	C	6 of 72	2		C	6 of 72	7
	C	7 of 72			C	7 of 72	7
	C	28 of 72			C	28 of 72	7
	C	32 of 72	4		C	32 of 72	7
	C	33 of 72			C	33 of 72	7
	C	34 of 72			C	34 of 72	7
	C	39 of 72	2		C	39 of 72	7
	C	41 of 72	2		C	41 of 72	7
	C	45 of 72			C	45 of 72	7
	C	46 of 72			C	46 of 72	7
	C	59 of 72			C	59 of 72	7
	C	60 of 72	2		C	60 of 72	7
	C	68 of 72			C	68 of 72	7
	C	69 of 72			C	69 of 72	7
	C	71 of 72			C	71 of 72	7
	D	5	9/4/01		D	5	1/2/02
	D	10	12/11/00		D	10	1/2/02
	D	29	12/11/00		D	29	1/2/02
	D	34	12/11/00		D	34	1/2/02
	D	35	12/11/00		D	35	12/11/00
	D	36	9/4/01		D	36	9/4/01
	D	52	12/11/00		D	52	1/2/02
	D	53	12/11/00		D	53	1/2/02
	D	54	12/11/00		D	54	1/2/02
	D	55	9/4/01		D	55	1/2/02
	D	56	9/4/01		D	56	1/2/02
	D	57	9/4/01		D	57	1/2/02
	D	58	9/4/01		D	58	1/2/02
	D	59	9/4/01		D	59	1/2/02
	D	60	9/4/01		D	60	1/2/02
	D	61	9/4/01		D	61	1/2/02
	D	62	9/4/01		D	62	1/2/02
	D	63	12/1/01		D	63	1/2/02
	D	---	---		D	64	1/2/02

Improved Technical Specifications
Supplement dated 1/31/02

Revision 7 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	Part	Page	Revision/ Date	Chapter/ Section	Part	Page	Revision/ Date
3.3	D	---	---	3.3	D	65	1/2/02
	D	---	---		D	66	1/2/02
	D	---	---		D	67	12/11/00
	D	---	---		D	68	12/11/00
	D	---	---		D	69	12/11/00
	D	---	---		D	70	9/4/01
	D	---	---		D	71	9/4/01
	D	---	---		D	72	9/4/01
	D	---	---		D	73	9/4/01
	D	---	---		D	74	9/4/01
	D	---	---		D	75	9/4/01
	D	---	---		D	76	9/4/01
	D	---	---		D	77	9/4/01
	D	---	---		D	78	12/1/01
	D	---	---		D	79	1/2/02
	D	---	---		D	80	1/2/02
	D	---	---		D	81	1/2/02
	D	---	---		D	82	1/2/02
	D	---	---		D	83	1/2/02
	D	---	---		D	84	1/2/02
	D	---	---		D	85	1/2/02
	D	---	---		D	86	1/2/02
	D	---	---		D	87	1/2/02
	D	---	---		D	88	1/2/02
	E	3.3.2-19	2		E	3.3.2-19	7
	E	3.3.2-20			E	3.3.2-20	None
	E	3.3.3-1			E	3.3.3-1	7
	E	3.3.3-2			E	3.3.3-2	7
	E	3.3.3-3			E	3.3.3-3	7
	E	3.3.3-4			E	3.3.3-4	7
	E	3.3.3-5	2		E	3.3.3-5	7
	E	3.3.4-2	1		E	3.3.4-2	7
	E	3.3.5-2			E	3.3.5-2	7
	E	3.3.5-3			E	3.3.5-3	7
	E	3.3.5-6			E	3.3.5-6	7
	E	3.3.5-7			E	3.3.5-7	7
	E	B 3.3.2-38			E	B 3.3.2-38	7
	E	B 3.3.2-39			E	B 3.3.2-39	7
	E	B 3.3.2-40			E	B 3.3.2-40	None
	E	B 3.3.2-41			E	B 3.3.2-41	None
	E	B 3.3.2-42			E	B 3.3.2-42	None
	E	B 3.3.2-43			E	B 3.3.2-43	None
	E	B 3.3.2-44			E	B 3.3.2-44	None
	E	B 3.3.3-19			E	B 3.3.3-19	7

Improved Technical Specifications
Supplement dated 1/31/02

Revision 7 Change Page List

UPDATING INSTRUCTIONS

Remove				Insert			
Chapter/ Section	**Part**	**Page**	**Revision/ Date**	**Chapter/ Section**	**Part**	**Page**	**Revision/ Date**
3.3	E	B 3.3.3-20		3.3	E	B 3.3.3-20	7
	E	B 3.3.3-23			E	B 3.3.3-23	7
	E	B 3.3.4-5			E	B 3.3.4-5	7
	E	B 3.3.4-7			E	B 3.3.4-7	7
	E	B 3.3.5-8	1		E	B 3.3.5-8	7
	F	27	12/11/00		F	27	1/2/02
	F	34	12/11/00		F	34	1/2/02
	F	35	5/1/01		F	35	1/2/02
	F	39	12/11/00		F	39	1/2/02
	F	41	12/11/00		F	41	1/2/02
	F	42	12/11/00		F	42	1/2/02
	F	45	12/11/00		F	45	1/2/02
	F	---	---		F	88	1/2/02
	G	1	12/1/01		G	1	1/2/02
	G	3	9/4/01		G	3	1/2/02
	G	5	12/11/00		G	5	1/2/02
	G	7	9/4/01		G	7	1/2/02
5.0	B	5.0-26	12/11/00	5.0	B	5.0-27	1/2/02
	C	35 of 41			C	35 of 41	7
	D	11	12/1/01		D	11	1/2/02
	E	5.0-36			E	5.0-36	7
	F	6	12/11/00		F	6	1/2/02
	G	1	5/1/01		G	1	1/2/02

3.0 SR APPLICABILITY (continued)

SR 3.0.3

If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

SR 3.0.4

Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3 and 4.

BASES (continued)

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met.

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 also provides a time limit for completion of Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

BASES

SR 3.0.3 (continued)

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

BASES

SR 3.0.3 (continued)

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a MODE or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit.

The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that surveillances do not have to be performed on

BASES

SR 3.0.4 (continued)

inoperable equipment. When equipment is inoperable, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

The provisions of SR 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown.

The precise requirements for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into the MODE or other specified condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance that could not be performed until after entering the LCO Applicability, would have its Frequency specified such that it is not "due" until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a Note as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SRs' annotation is found in Section 1.4, Frequency.

SR 3.0.4 is only applicable when entering MODE 4 from MODE 5, MODE 3 from MODE 4, Mode 2 from MODE 3, or MODE 1 from MODE 2. Furthermore, SR 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating

BASES

SR 3.0.4 (continued)

in MODE 1, 2, or 3 or 4. The requirements of SR 3.0.4 do not apply in MODES 5 and 6, or in other specified conditions of the Applicability (unless in MODE 1, 2, 3 or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken.

~~TS.4.0-1~~
~~REV 101 8/20/92~~
~~(overflow)~~

SR 3.0.3 ~~The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed.~~ If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met ~~The ACTION requirements~~ may be delayed for up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is~~to~~ permitted to allow ~~the~~ performance ~~completion~~ of the surveillance. ~~when the allowable outage time limits of the ACTION requirements are less than 24 hours.~~ ~~Surveillance Requirements do not have to be performed on inoperable equipment.~~ A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed. A3.0-18 R-7 L3.0-20 R-7

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered. A3.0-18

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered. A3.0-18

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit. M3.0-19

SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3 and 4.

NSHD category	Change number 3.0-	Discussion Of Change
M	19	New Requirement. (ITS SR 3.0.4) A new SR 3.0.4 is included which establishes the requirement that all applicable SRs shall be met before entry into a MODE or other specified condition in the Applicability. This Specification clarifies and describes the SR applicability consistent with the use and format of NUREG-1431. Since this specification adds new requirements to the TS, it is considered more restrictive.
L	20	CTS 4.0.B. (ITS SR 3.0.3) The requirements for a missed Surveillance Requirement (SR) have been changed to be consistent with approved TSTF-358, Revision 5, as modified by Federal Register notice 66FR32400, of June 14, 2001, and in response to public comments. The availability of this TS improvement was published in the Federal Register on September 28, 2001, as part of the consolidated line item improvement process (CLIIP). NMC has reviewed the safety evaluation dated June 8, 2001 as part of the CLIIP. This review included review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-358. NMC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Prairie Island (PI), Units 1 and 2, and justify this change for incorporation into the PI ITS. NMC is not proposing any variations or deviation from the TS changes described in the fully modified TSTF-358 Revision 5 or the NRC staff's model safety evaluation dated June 8, 2001.

NSHD category	Change number 3.0-	Discussion Of Change
L	20	(continued) This change is considered less restrictive since this change may allow continued operation with a missed Surveillance for the allowed SR interval. CTS does not allow more than 24 hours to extend the SR interval.

SR 3.0.2

To accommodate normal test schedules, t~~T~~he specified Frequency for each SR is met, except for SRs with a specified Frequency of 24 months, if the Surveillance is performed within 0.75 to 1.25 times (± 25%) the interval specified in the Frequency, as measured from the established schedule for performance of the SR ~~previous performance~~ or as measured from the time a specified condition of the Frequency is met. CL3.0-32

The specified Frequency is met for each SR with a specified Frequency of 24 months if the Surveillance is performed within 24 months, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met. CL3.0-32

For Frequencies specified as "once," the ~~above~~ interval extension (1.25 times the interval specified) does not apply. CL3.0-32

If a Completion Time requires periodic performance on a "once per . . ." basis, the ~~above Frequency~~ interval extension (1.25 times the interval specified)~~extension~~ applies to each performance after the initial performance as measured from the previous performance. CL3.0-32

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3

If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of

3.0 SR APPLICABILITY

SR 3.0.3 the specified Frequency, whichever is greater~~less~~. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed. TA3.0-55

R-7

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3 and 4.

~~Reviewer's Note: SR 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, SR 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, and 3. The MODE change restrictions in SR 3.0.4 were previously applicable in all MODES. Before this version of SR 3.0.4 can be implemented on a plant-specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on MODE changes or~~ TA3.0-23

~~Required Actions should be included in individual LCOs to justify this change; such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of a conversion to the STS.~~

Action, whether it is a particular Surveillance or some other remedial action, is considered a single action with a single Completion Time. One reason for not allowing the 25% extension to this Completion Time is that such an action usually verifies that no loss of function has occurred by checking the status of redundant or diverse components or accomplishes the function of the inoperable equipment in an alternative manner.

Also, as stated in SR 3.0.2, the 25% extension does not apply to SRs with a specified Frequency of 24 months. This is to ensure performance is within equipment performance expectations. This is consistent with present industry analysis that supports refueling cycle intervals up to, but not longer than, 24 months. CL3.0-53

The provisions of SR 3.0.2 are not intended to be used repeatedly merely as an operational convenience to extend Surveillance intervals (other than those consistent with refueling intervals) or periodic Completion Time intervals beyond those specified.

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater~~less~~, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met. TA3.0-55 R-7

This delay period provides adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying

(continued)

BASES

SR 3.0.3 (continued)

with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions, ~~or~~ operating~~ional~~ situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not ~~to~~ have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specfified Frequency~~24 hours~~ to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

TA3.0-55

SR 3.0.3 ~~also~~ provides a time limit for, and allowances for the performance of, ~~completion of~~ Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

R-7

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

(continued)

While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

TA3.0-55

R-7

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable

(continued)

LCO Conditions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

SR 3.0.4 SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a MODE or other specified condition in the Applicability.

BASES

SR 3.0.4 (continued) This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit.

The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to

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perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO

3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

The provisions of SR 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown.

The precise requirements for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into the MODE or other specified condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance that could

BASES

SR 3.0.4 (continued)

not be performed until after entering the LCO Applicability, would have its Frequency specified such that it is not "due" until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a Note as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SRs' annotation is found in Section 1.4, Frequency.

SR 3.0.4 is only applicable when entering MODE 4 from MODE 5, MODE 3 from MODE 4, Mode 2 from MODE 3, or MODE 1 from MODE 2. Furthermore, SR 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating in MODE 1, 2, or 3 or 4. The requirements

of SR 3.0.4 do not apply in MODES 5 and 6, or in other

specified conditions of the Applicability (unless in MODE 1, 2, 3 or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken.

Difference Category	Difference Number 3.0-	Justification for Differences
TA	46	This change incorporates TSTF-165.
TA	47	This change incorporates TSTF-273, Revision 2.
	48	Not used.
	49	Not used.
	50	Not used.
PA	51	Since this discussion is supporting the use of Test Exception LCOs, clarification is provided.
TA	52	This change incorporates TSTF-8, Revision 2.
CL	53	NUREG-1431 allows a 25% extension of the specified interval. Since the PI ITS allows ± 25% of the specified interval in accordance with CTS provisions, the term "extension" is not always meaningful and has been changed to "allowance" where either +25% or -25% could be applied. Clarification is also included that 24 month intervals are not allowed to be extended by 25%.

TA	54	This change incorporates TSTF-52, Revision 3.
TA	55	This change incorporates fully modified TSTF-358, Revision 5 as modified by Federal Register notice 66FR32400 of June 14, 2001 and public comments.

Specific NSHD for Change L3.0-20

CTS allows a missed Surveillance interval to be extended 24 hours to perform the missed Surveillance. This change may allow the Surveillance interval for a missed Surveillance to be extended for the full Surveillance interval.

NMC has reviewed the proposed no significant hazards consideration determination (NSHD) published in the Federal Register as part of the consolidated line item improvement process (CLIIP). NMC has concluded that the proposed NSHD presented in the Federal Register notice is applicable to the Prairie Island Nuclear Generating Plant and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

As discussed in the notice of availability published in the Federal Register on September 28, 2001, for this TS improvement, plant-specific verifications were performed as follows:

NMC has established TS Bases for SR 3.0.3 which state that use of the delay period established by Surveillance Requirement 3.0.3 is a flexibility which is not intended to be used as an operation convenience to extend surveillance intervals, but only for the performance of missed surveillances.

The modification will also include changes to the Bases for SR 3.0.3 that provide details on how to implement the new requirements. The Bases changes provide guidance for surveillance frequencies that are not based on time intervals but are based on specified unit conditions, operating situations, or requirements of regulations. In addition, the Bases changes state that NMC is expected to perform a missed surveillance test at the first reasonable opportunity, taking into account appropriate considerations, such as the impact on plant risk and accident analysis assumptions, consideration of unit conditions, planning, availability of personnel, and the time required to perform the surveillance. The Bases also state that the risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risks Before Maintenance Activities at Nuclear Power Plants," and that the missed surveillance should be treated as an emergent condition, as discussed in Regulatory Guide 1.182. In addition, the Bases state that the degree of depth and rigor of the evaluation should be commensurate with the importance of the component that missed surveillances for

Specific NSHD for Change L3.0-20 (continued)

important components should be analyzed quantitatively. The Bases also state that the results of the risk evaluation determine the safest course of action. In addition, the Bases state that all missed surveillances will be placed in the licensee's Corrective Action Program. Finally, NMC has a bases Control Program consistent with Section 5.5 of the STS.

NMC has reviewed the environmental evaluation included in the model safety evaluation dated June 8, 2001, as part of the CLIIP. NMC has determined that the staff's findings presented in that evaluation are applicable to Prairie Island and the evaluation is hereby incorporated by reference for this application.

ENVIRONMENTAL ASSESSMENT

The Nuclear Management Company has evaluated the proposed changes and determined that:

1. The changes do not involve a significant hazards consideration, or

2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or

3. The changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR Part 51 Section 51.22(c)(9). Therefore, pursuant to 10 CFR Part 51 Section 51.22(b), an environmental assessment of the proposed changes is not required.

Table 3.3.2-1 (page 3 of 4)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. Steam Line Isolation (continued)					
c. High Steam Flow	1, 2(c), 3(c)(d)	2 per steam line	D	SR 3.3.2.1 SR 3.3.2.3 SR 3.3.2.6	≥ XXXX lb/hr at 1005 psig
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				
and Coincident with Low-Low T_{avg}-	1, 2(c), 3(c)(d)	4	D	SR 3.3.2.1 SR 3.3.2.3 SR 3.3.2.6	≥ 536°F
d. High High Steam Flow	1, 2(c), 3(c)	2 per steam line	D	SR 3.3.2.1 SR 3.3.2.3 SR 3.3.2.6	≤ 4.5E6 lb/hr at 735 psig
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				
5. Feedwater Isolation					
a. Automatic Actuation Relay Logic	1,2(e), 3(e)	2 trains	F	SR 3.3.2.2	NA
b. High- High Steam Generator (SG) Water Level	1, 2(e)	3 per SG	G	SR 3.3.2.1 SR 3.3.2.3 SR 3.3.2.6	≤ 90%

(c) Except when both MSIVs are closed.
(d) Reactor Coolant System (RCS) T_{avg} ≥ 520°F.
(e) Except when all Main Feedwater Regulation Valves (MFRVs), and MFRVs bypass valves are closed and in manual or isolated by a closed non-automatic valve.

3.3 INSTRUMENTATION

3.3.3 Event Monitoring (EM) Instrumentation

LCO 3.3.3 The EM instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----------NOTE---------- Not applicable to Core Exit Thermocouples (CETs). ---------- One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more required CETs channel(s) inoperable. AND At least 4 CETs OPERABLE in the center region of the core. AND At least one CET OPERABLE in each quadrant of the outside core region.	B.1 Restore required CET channel(s) to OPERABLE status.	30 days
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Initiate action in accordance with Specification 5.6.8.	Immediately
D. ----------NOTE---------- Not applicable to hydrogen monitor or CET channels. ---------- One or more Functions with two required channels inoperable.	D.1 Restore one channel to OPERABLE status.	7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two hydrogen monitor channels inoperable.	E.1 Restore one hydrogen monitor channel to OPERABLE status.	72 hours
F. Three or more required CET channels inoperable in one or more quadrants. AND Less than four CETs OPERABLE in the center region of the core.	F.1 Restore required channels to OPERABLE status.	7 days
G. Three or more required CET channels inoperable in one or more quadrants. AND Less than one CET OPERABLE in each quadrant of the outside core region.	G.1 Restore required channels to OPERABLE status.	7 days
H. Required Action and associated Completion Time of Condition D, E, F or G not met.	H.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
I. As required by Required Action H.1 and referenced in Table 3.3.3-1.	I.1 Be in MODE 3.	6 hours
J. As required by Required Action H.1 and referenced in Table 3.3.3-1.	J.1 Initiate action in accordance with Specification 5.6.8.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
SR 3.3.3.1 and SR 3.3.3.2 apply to each EM instrumentation Function in Table 3.3.3-1, except Function 9. SR 3.3.3.3 applies only to Function 9.

	SURVEILLANCE	FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.3.2	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. --- Perform CHANNEL CALIBRATION.	24 months
SR 3.3.3.3	----------NOTE---------- Verification of setpoint is not required. --- Perform TADOT.	24 months

3.3 INSTRUMENTATION

3.3.4 4 kV Safeguards Bus Voltage Instrumentation

LCO 3.3.4 The following 4 kV safeguards bus voltage instrumentation Functions shall be OPERABLE:

a. Two channels per bus of the undervoltage Function;

b. Two channels per bus of the degraded voltage Function; and

c. Two trains of automatic load sequencers.

APPLICABILITY: MODES 1, 2, 3, and 4,
When associated Diesel Generator (DG) is required to be OPERABLE by LCO 3.8.2, "AC Sources-Shutdown."

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----------NOTE---------- Only applicable to Functions a and b. ---------- One or more Functions with one channel per bus inoperable.	A.1 Place channel in bypass.	6 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ----------NOTE---------- Only applicable in MODE 1, 2, 3, or 4 when the Containment Inservice Purge System is not isolated. ---------- One or more Functions (except radiation monitors) with one or more manual or automatic actuation trains inoperable. OR Two radiation monitoring trains inoperable. OR Required Action and associated Completion Time of Condition A not met.	B.1 Place and maintain containment inservice (low flow) purge valves in closed position. OR B.2 Enter applicable Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves," for containment inservice (low flow) purge valves made inoperable by isolation instrumentation.	Immediately Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Only applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated. ---------- One or more Functions (except radiation monitors) with one or more manual or automatic actuation trains inoperable. OR Two radiation monitoring trains inoperable. OR Required Action and associated Completion Time for Condition A not met.	C.1 Place and maintain containment inservice (low flow) purge valves in closed position. OR C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment inservice (low flow) purge valves made inoperable by isolation instrumentation.	Immediately Immediately

Table 3.3.5-1 (page 1 of 1)
Containment Ventilation Isolation Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1.	Manual Initiation	1[(a)], 2[(a)], 3[(a)], 4[(a)], (b)	2	SR 3.3.5.4	NA
2.	Automatic Actuation Relay Logic	1[(a)], 2[(a)], 3[(a)], 4[(a)], (b)	2 trains	SR 3.3.5.2	NA
3.	High Radiation in Exhaust Air	1[(a)], 2[(a)], 3[(a)], 4[(a)], (b)	2 trains	SR 3.3.5.1 SR 3.3.5.3 SR 3.3.5.5	(c)
4.	Manual Containment Isolation		Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for initiation functions and requirements.		
5.	Safety Injection		Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for initiation functions and requirements.		
6.	Manual Containment Spray		Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 2, for initiation functions and requirements.		

(a) When the Containment Inservice Purge System is not isolated.
(b) During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated.
(c) ≤ count rate corresponding to 500 mrem/year whole body and 3000 mrem/year skin due to noble gases at the site boundary.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY (continued)

4. Steam Line Isolation

b. Steam Line Isolation-High High Containment Pressure

This Function actuates closure of the MSIVs in the event of a LOCA or an SLB inside containment to maintain at least one unfaulted SG as a heat sink for the reactor. Three OPERABLE channels are sufficient to satisfy protective requirements with two-out-of-three logic. The transmitters and electronics are located outside containment with the sensing line located inside containment. Thus, they will not experience any adverse environmental conditions, and the Allowable Value reflects only steady state instrument uncertainties.

High High Containment Pressure must be OPERABLE in MODES 1, 2, and 3, when there is sufficient energy in the primary and secondary side to pressurize the containment following a pipe break. This would cause a significant increase in the containment pressure, thus allowing detection and closure of the MSIVs. The Steam Line Isolation Function remains OPERABLE in MODES 2 and 3 unless both MSIVs are closed. In MODES 4, 5, and 6, there is not enough energy in the primary and secondary sides to overpressurize containment.

c. Steam Line Isolation-High Steam Flow Coincident With Safety Injection and Coincident With Low Low T_{avg}

This Function provides closure of the MSIVs during an SLB or inadvertent opening of an SG safety valve to maintain at least one unfaulted SG as a heat sink for the reactor.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY

c. Steam Line Isolation- High Steam Flow Coincident With Safety Injection and Coincident With Low Low T_{avg} (continued)

Two steam line flow channels per steam line are required OPERABLE for this Function. These are combined in a one-out-of-two logic to indicate high steam flow in one steam line. The steam flow transmitters provide control inputs, but the control function cannot cause the events that the function must protect against. Therefore, two channels are sufficient to satisfy redundancy requirements. The one-out-of-two configuration allows online testing because trip of one high steam flow channel is not sufficient to cause initiation.

The High Steam Flow Allowable Value is a ΔP corresponding to XXXXX lb/hr at 1005 psig.

The main steam line isolates if the High Steam Flow signal occurs coincident with an SI signal and Low Low RCS average temperature. The Main Steam Line Isolation Function requirements for the SI Functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY

c. Steam Line Isolation- High Steam Flow Coincident With Safety Injection and Coincident With Low Low T_{avg} (continued)

Two channels of T_{avg} per loop are required to be OPERABLE. The T_{avg} channels are combined in a logic such that two channels tripped cause a trip for the parameter. The accidents that this Function protects against cause reduction of T_{avg} in the entire primary system. Therefore, the provision of two OPERABLE channels per loop in a two-out-of-four configuration ensures no single random failure disables the Low Low T_{avg} Function. The T_{avg} channels provide control inputs, but the control function cannot initiate events that the Function acts to mitigate. Therefore, additional channels are not required to address control protection interaction issues.

With the T_{avg} resistance temperature detectors (RTDs) located inside the containment, it is possible for them to experience adverse environmental conditions during an SLB event. Therefore, the Allowable Value reflects both steady state and adverse environmental instrumental uncertainties. This Function must be OPERABLE in MODES 1 and 2, and in MODE 3, when T_{avg} is above 520 °F, when a secondary side break or stuck open valve could result in rapid depressurization of the steam lines. The Steam Line Isolation Function is required to be OPERABLE in MODES 2 and 3 unless both MSIVs are closed. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to have an accident.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY (continued)

d. Steam Line Isolation-High High Steam Flow Coincident With Safety Injection

This Function provides closure of the MSIVs during a SLB to maintain at least one unfaulted SG as a heat sink for the reactor.

Two steam line flow channels per steam line are required to be OPERABLE for this Function. These are combined in a one-out-of-two logic to indicate high steam flow in one steam line. The steam flow transmitters provide control inputs, but the control function cannot cause the events that the Function must protect against. Therefore, two channels are sufficient to satisfy redundancy requirements.

The Allowable Value for High High Steam Flow is a ΔP corresponding to $\leq$ 4.5E6 lb/hr at 735 psig.

With the transmitters located inside containment, it is possible for them to experience adverse environmental conditions during an SLB event. Therefore, the Allowable Value reflects both steady state and adverse environmental instrument uncertainties.

The main steam lines isolate if the High High Steam Flow signal occurs coincident with an SI signal. The Main Steam Line Isolation Function requirements for the SI Functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY

d. Steam Line Isolation-High High Steam Flow Coincident With Safety Injection (continued)

This Function must be OPERABLE in MODES 1, 2, and 3 when a secondary side break could result in rapid depressurization of the steam lines unless both MSIVs are closed. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to have an accident.

5. Feedwater Isolation

The primary function of the Feedwater Isolation signal is to limit containment pressurization during an SLB. This Function also mitigates the effects of a high water level in the SGs, which could result in carryover of water into the steam lines and excessive cooldown of the primary system. The SG high water level is due to excessive feedwater flows.

The Function performs the following:

- Trips the main turbine;
- Trips the main feedwater (MFW) pumps; and
- Shuts the MFW regulating valves (MFRVs) and the MFRV bypass valves.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY

5. Feedwater Isolation (continued)

This Function is actuated by High High SG Water Level, or by an SI signal. In the event of SI, the unit is taken off line. The MFW System is also taken out of operation and the AFW System is automatically started. The SI signal was discussed previously.

a. Feedwater Isolation-Automatic Actuation Relay Logic

The feedwater isolation actuation logic consists of all circuitry housed within the ESF relay logic cabinets for the feedwater isolation subsystem, in the same manner as described for ESFAS Function 1.b.

This Function must be OPERABLE in MODES 1, 2, and 3, except when all MFRV's and associated bypass valves are closed and in manual or isolated by a closed non-automatic valve, when a secondary side break could result in significant containment pressurization. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to cause an accident.

b. Feedwater Isolation-High High Steam Generator Water Level

This signal provides protection against excessive feedwater flow. The SG water level instruments provide input to the Feedwater Control System. Therefore, the actuation logic must be able to withstand both an input failure to the control system (which may then require the protection function actuation) and a single failure in the other channels providing the protection function actuation. Median signal selection

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY

b. Feedwater Isolation-High High Steam Generator Water Level (continued)

is used in the Feedwater Control System. Thus, three OPERABLE channels are sufficient to satisfy the requirements with a two-out-of-three logic. The transmitters (d/p cells) are located inside containment. However, the events that this Function protects against cannot cause a severe environment in containment. Therefore, the Allowable Value reflects only steady state instrument uncertainties.

This Function must be OPERABLE in MODES 1 and 2, except when all MFRV's and associated bypass valves are closed and in manual or isolated by a closed non-automatic valve. In MODES 3, 4, 5, and 6, the MFW System and the turbine generator are normally not in service and this Function is not required to be OPERABLE.

c. Feedwater Isolation-Safety Injection

Feedwater Isolation is also initiated by all Functions that initiate SI via the SI signal. The Feedwater Isolation Function requirements for these Functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead Function 1, SI, is referenced for all initiating functions and requirements.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY (continued)

6. Auxiliary Feedwater

The AFW System is designed to provide a secondary side heat sink for the reactor in the event that the MFW System is not available. The system has a motor driven pump and a turbine driven pump, making it available during normal unit operation, during a loss of AC power, a loss of MFW, and during a Feedwater System pipe break. The normal source of water for the AFW System is the condensate storage tank (CST) (not safety related). Upon low level in the CST, the operators can manually realign the pump suctions to the Cooling Water (CL) System (safety related). The AFW System is aligned so that upon a pump start, flow is initiated to the SGs immediately.

a. Auxiliary Feedwater-Automatic Actuation Relay Logic

The auxiliary feedwater actuation logic consists of all circuitry housed within the reactor protection relay logic cabinets for the auxiliary feedwater actuation subsystem.

b. Auxiliary Feedwater-Low Low Steam Generator Water Level

Low Low SG Water Level provides protection against a loss of heat sink. A feed line break, inside or outside of containment, or a loss of MFW, would result in a loss of SG water level. The SG water level instruments provide input to the Feedwater Control System. Therefore, the actuation logic must be able to withstand both an input failure to the control system which may then require a protection function actuation and a single failure in the other channels

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY (continued)

b. Auxiliary Feedwater-Low Low Steam Generator Water Level

providing the protection function actuation. Median signal selection is used in the Feedwater Control System. Thus, three OPERABLE channels per SG are sufficient to satisfy the requirements with a two-out-of-three logic.

With the transmitters (d/p cells) located inside containment and thus possibly experiencing adverse environmental conditions (feed line break), the Allowable Value reflects the inclusion of both steady state and adverse environmental instrument uncertainties.

c. Auxiliary Feedwater-Safety Injection

An SI signal starts the motor driven and turbine driven AFW pumps. The AFW initiation functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements.

Functions 6.a through 6.c must be OPERABLE in MODES 1, 2, and 3 to ensure that the SGs remain the heat sink for the reactor. Low Low SG Water Level in any operating SG will cause the AFW pumps to start. The system is aligned so that upon a start of the pump, water immediately begins to flow to the SGs. These Functions do not have to be OPERABLE in MODES 5 and 6 because there is not enough heat being generated in the reactor to require the SGs as a heat sink. In MODE 4, AFW actuation does not need to be OPERABLE because either AFW or residual heat removal (RHR) will already be in operation to remove decay heat or sufficient time is available to manually place either system in operation.

BASES

APPLICABLE SAFETY ANALYSES, LCO, AND APPLICABILITY (continued)

d. Auxiliary Feedwater-Undervoltage on 4kV Buses 11 and 12 (21 and 22)

A loss of power on the buses that provide power to the MFW pumps provides indication of a pending loss of MFW flow. The undervoltage Function senses the voltage upstream of each MFW pump breaker. A loss of power for both MFW pumps will start the turbine driven AFW pump to ensure that at least one SG contains enough water to serve as the heat sink for reactor decay heat and sensible heat removal following the reactor trip.

e. Auxiliary Feedwater-Trip of Both Main Feedwater Pumps

A trip of both MFW pumps is an indication of a loss of MFW and the subsequent need for some method of decay heat and sensible heat removal to bring the reactor back to no load temperature and pressure. Motor driven MFW pumps are equipped with a breaker position sensing device. A trip of both MFW pumps starts the motor driven and turbine driven AFW pumps to ensure that at least one SG is available with water to act as the heat sink for the reactor.

Functions 6.d and 6.e must be OPERABLE in MODES 1 and 2. This ensures that at least one SG is provided with water to serve as the heat sink to remove reactor decay heat and sensible heat in the event of an accident. In MODES 3, 4, and 5, the MFW pumps may be normally shut down, and thus neither the pump trip or bus undervoltage are indicative of a condition requiring automatic AFW initiation. Also, in MODE 2 the AFW system may be used for SG level control. The MFW trip is bypassed by placing the AFW pump CS in shutdown auto when AFW is aligned for this purpose. Low low SG level provides protection during this operation.

The ESFAS instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

BASES (continued)

APPLICABILITY

The EM instrumentation LCO is applicable in MODES 1 and 2. These variables are related to the diagnosis and preplanned actions required to mitigate DBAs. In MODES 3, 4, 5, and 6, unit conditions are such that the likelihood of an event that would require EM instrumentation is low; therefore, the EM instrumentation is not required to be OPERABLE in these MODES.

ACTIONS

Note 1 has been added in the ACTIONS to exclude the MODE change restriction of LCO 3.0.4. This exception allows entry into the applicable MODE while relying on the ACTIONS even though the ACTIONS may eventually require unit shutdown. This exception is acceptable due to the passive function of the instruments, the operator's ability to respond to an accident using alternate instruments and methods, and the low probability of an event requiring these instruments.

Note 2 has been added in the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed on Table 3.3.3-1. The Completion Time(s) of the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies when one or more Functions have one required channel that is inoperable. Required Action A.1 requires restoring the inoperable channel to OPERABLE status within 30 days. The 30 day Completion Time is based on operating experience and takes

BASES

ACTIONS

A.1 (continued)

into account the remaining OPERABLE channel, the passive nature of the instrument (no critical automatic action is assumed to occur from these instruments), and the low probability of an event requiring EM instrumentation during this interval.

A Note has been added stating that Condition A is not applicable to the CETs. The CETs are controlled under Conditions B, F, and G.

B.1

Condition B applies when there is one or more required CET channel(s) inoperable and with at least 4 CETs OPERABLE in the center region of the core, and at least one CET OPERABLE in each quadrant of the outside core region. Required Action B.1 requires restoring the required CET channel(s) to OPERABLE status within 30 days. The 30 day Completion Time is acceptable based on operating experience and takes into account the remaining OPERABLE CETs, and the low probability of an event requiring EM Instrumentation during this interval.

C.1

Condition C applies when the Required Action and associated Completion Time for Condition A or B are not met. This Required Action specifies initiation of actions in Specification 5.6.8, a written report to be submitted to the NRC immediately. This report discusses the results of the evaluation of the inoperability and identifies proposed restorative actions. This action is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability, and given the likelihood of unit conditions that would require information provided by this instrumentation.

BASES

ACTIONS (continued)

I.1

If the Required Action and associated Completion Time of Condition H is not met and Table 3.3.3-1 directs entry into Condition I, the unit must be brought to a MODE where the requirements of this LCO do not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours.

The allowed Completion Time is reasonable, based on operating experience, to reach the required unit condition from full power condition from full power conditions in an orderly manner and without challenging unit systems.

J.1

Alternate means (e.g., CETs) of monitoring Reactor Vessel Water Level and Containment Area Radiation have been developed and tested. These alternate means may be temporarily installed if the normal EM channel cannot be restored to OPERABLE status within the allotted time. If these alternate means are used, the Required Action is not to shut down the unit but rather to follow the directions of Specification 5.6.8, in the Administrative Controls section of the TS. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed EM channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal EM channels.

BASES (continued)

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that SR 3.3.3.1 and SR 3.3.3.2 apply to each EM instrumentation Function in Table 3.3.3-1, except Function 9. SR 3.3.3.3 only applies to Function 9.

SR 3.3.3.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross instrumentation failure 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. 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. The high radiation instrumentation should be compared to similar unit instruments located throughout the unit.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. 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. If the channels are within the criteria, it is an indication that the channels are OPERABLE.

As specified in the SR, a CHANNEL CHECK is only required for those channels that are normally energized.

BASES

APPLICABLE SAFETY ANALYSES (continued)

unit protection in the event of any of the analyzed accidents discussed in Reference 3, in which a loss of offsite power is assumed.

The delay times assumed in the safety analysis for the ESF equipment include the 10 second DG start delay, and the appropriate sequencing delay, if applicable.

The 4 kV safeguards bus voltage instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

The LCO for 4 kV safeguards bus voltage instrumentation requires that two channels per bus of both the UV and DV Functions, and two trains of automatic load sequencers, shall be OPERABLE in MODES 1, 2, 3, and 4. In MODES 5 and 6, the two channels and the associated load sequencer must be OPERABLE whenever the associated DG is required to be OPERABLE to ensure that the automatic start of the DG is available when needed. A UV or DV channel is OPERABLE when it is capable of actuating the load sequencer. Loss of the 4 kV Safeguards Bus Voltage Instrumentation Function could result in the delay of safety systems initiation when required. This could lead to unacceptable consequences during accidents.

A channel is OPERABLE with a trip setpoint outside its calibration tolerance band provided the trip setpoint "as-found" value does not exceed its associated Allowable Value and provided the trip setpoint "as-left" value is adjusted to within the calibration tolerance band.

APPLICABILITY

The 4 kV Safeguards Bus Voltage Instrumentation Functions are required in MODES 1, 2, 3, and 4 because ESF Functions are designed to provide protection in these MODES. Actuation in MODE 5 or 6 is required whenever the required DG must be OPERABLE so that it can perform its function on an UV or degraded power to the safeguards bus.

BASES (continued)

ACTIONS

In the event a channel's trip setpoint is found nonconservative with respect to the Allowable Value, or the channel is found inoperable, then the function that channel provides must be declared inoperable and the LCO Condition entered for the particular protection function affected.

Because the required channels are specified on a per bus basis, the Condition may be entered separately for each bus as appropriate.

A Note has been added in the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed in the LCO. The Completion Time(s) of the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the 4 kV safeguards bus voltage Function with one UV or one DV or both (one UV and one DV) channel(s) per bus inoperable.

If one channel is inoperable, Required Action A.1 requires that channel to be placed in bypass within 6 hours. With a channel in bypass, the remaining 4 kV safeguards bus voltage instrumentation channel provides UV or DV Function initiation.

The specified Completion Time and time allowed for bypassing one channel are reasonable considering the Function will operate on every bus and the low probability of an event occurring during these intervals.

Condition A has been modified by a Note indicating that this Condition is only applicable to Functions a and b.

BASES

ACTIONS

B.1 and B.2 (continued)

containment inservice (low flow) purge valves in the closed position is met, or the Required Action for the applicable Conditions of LCO 3.6.3 is met for each valve made inoperable by failure of isolation instrumentation.

A Note is added stating that Condition B is only applicable in MODE 1, 2, 3, or 4 when the Containment Inservice Purge System is not isolated.

C.1 and C.2

Condition C applies to all CVI Functions and addresses the train orientation for these Functions. If a train is inoperable, or the Required Action and associated Completion Time of Condition A are not met, operation may continue as long as the Required Action to place and maintain containment inservice (low flow) purge and exhaust isolation valves in their closed position is met or the applicable Conditions of LCO 3.9.4, "Containment Penetrations," are met for each valve made inoperable by failure of isolation instrumentation. The Completion Time for these Required Actions is Immediately.

A Note states that Condition C is only applicable during CORE ALTERATIONS or during movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated.

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that Table 3.3.5-1 determines which SRs apply to which CVI Functions.

TABLE TS.3.5-1

A3.3-00

R-2

ENGINEERED SAFETY FEATURES INITIATION INSTRUMENT LIMITING SET POINTS

		FUNCTIONAL UNIT	CHANNEL	LIMITING SET POINTS*
Table 3.3.2-1 Funct 1c	1	High Containment Pressure (Hi)	Safety Injection*	≤4 psig
Table 3.3.2-1 Funct 2c	2	High Containment Pressure (Hi-Hi)	a. Containment Spray	≤23 psig
Table 3.3.2-1 Funct 4b			b. Steam Line Isolation of Both Lines	≤17 psig
Table 3.3.2-1 Funct 1d	3	Pressurizer Low Pressure	Safety Injection*	≥~~1760~~1815 psig L3.3-31
Table 3.3.2-1 Funct 1e and Note b	4	Low Steam Line Pressure	Safety Injection* Lead Time Constant Lag Time Constant	≥500 psig ≥12 seconds ≤2 seconds
Table 3.3.2-1 Funct 4c	5	High Steam Flow in a Steam Line Coincident with Safety Injection and Low T_{avg}	Steam Line Isolation of Affected Line	L3.3-31 d/p corresponding to ≤~~0.745~~ x 10^6 lb/hr at 1005 psig R-7 ≥~~536~~540 F L3.3-31 R-2

~~TABLE TS.3.5-1A~~
~~Page 1 of 2~~

~~TABLE TS.3.5-1 (Overflow)~~

Table 3.3.2-1 Funct 4d	6	High-high Steam Flow in a Steam Line Coincident with Safety Injection	Steam Line Isolation of Affected Line	≤d/p corresponding to 4.5 x 10^6 lb/hr at 735 psig	
	7	High Pressure Difference Between Shield Building and Containment	Containment Vacuum Breakers	≤0.5 psi	Addressed Elsewhere
	~~8~~	~~High Temperature in Ventilation Ducts~~	~~Ventilation System Isolation Dampers~~	~~120°F~~	R3.3-152
Table 3.3.5-1 Funct 3	9	High Radiation in Containment Exhaust Air	Containment Ventilation Isolation	≤count rate corresponding to 500 mrem/year whole body and 3000 mrem/year skin due to noble gases at the site boundary	

R-7

*Initiates also containment isolation, feedwater line isolation and starting of all containment fans.
d/p means differential pressure

~~TABLE TS.3.5-1A Page 1 of 2 (Overflow)~~

~~TABLE TS.3.5-2B (Page 3 of 9) (Overflow)~~

Table 3.3.2-1

cd. Hi Steam Flow and 2 of 4 Lo-Lo T_{avg} with Safety Injection:

1. Hi Steam Flow	2/Loop	~~1 in any Loop~~	~~1/Loop~~	1, 2(c), 3(c, d)	D29
2. Lo-Lo T_{avg}	4	~~2~~	~~3~~	1, 2(c), 3(c) (d)	D24

L3.3-42

R-7

Table 3.3.2-1

3. Safety Injection — See Functional Unit 1 above for all Safety Injection initiating functions and requirements.

Table 3.3.2-1

(c) Except when both MSIVs are closed~~When either main steam isolation valve is open~~.

A3.3-43

Table 3.3.2-1

(c,d) When reactor coolant system average temperature is greater than 520°F and either main steam isolation valve is open.

~~TABLE TS.3.5-2B Page 3 of 9 (Overflow)~~

TABLE TS.3.5-2B (Page 6 of 9)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

A3.3-05

L3.3-132

R-4

FUNCTIONAL UNIT	REQUIRED ~~TOTAL NO. OF~~ CHANNELS	~~CHANNELS TO TRIP~~	~~MINIMUM CHANNELS OPERABLE~~	APPLICABLE MODES	ACTION
8. LOSS OF POWER Note: Separate Condition entry is allowed for each Function					A3.3-150
LCO3.3.4 a. Degraded Voltage 4kV Safeguards Bus	24/Bus ~~(2/phase on 2 phases)~~	~~2/Bus (1/phase on 2 phases)~~	~~3/Bus~~	1, 2, 3, 4 (a)	31, 32, 33 M3.3-52
LCO3.3.4 b. Undervoltage 4kV Safeguards Bus	24/Bus ~~(2/phase on 2 phases)~~	~~2/Bus (1/phase on 2 phases)~~	~~3/Bus~~	1, 2, 3, 4 (a)	31, 32, 33 M3.3-52
LCO3.3.4 C. Automatic Load Sequencers	2			1, 2, 3, 4 (a)	31, 32, 33 A3.3-151
R-7					
~~9. BORIC ACID STORAGE TANK~~					
~~a. Lo-Lo Level~~	~~2 channel with 2 sensors per channel~~	~~1 sensor per channel in both channels~~	~~2 sensors in one channel~~	~~1, 2, 3, 4~~	~~34~~ A3.3-50
~~b. Automatic Actuation Logic and Actuation Relays~~	~~2~~	~~1~~	~~2~~	~~1, 2, 3, 4~~	

M3.3-52

LCO3.3.4 (a) When associated DG is required to be OPERABLE by LCO 3.8.2, " AC Sources - Shutdown."

~~TABLE TS.3.5-2B~~
~~Page 6 of 9~~
~~Rev 143 3/17/99~~

TABLE 3.5-2B (Page 7 of 9)

Action Statements

ACTION 20: With ~~the number of OPERABLE channels~~ one train inoperable~~less than the Total Number of Channels~~, restore the inoperable ~~train~~channel to OPERABLE status within 6 hours or be in at least MODE 3 ~~HOT SHUTDOWN~~ within 12~~the next 6~~ hours and in MODE 5 ~~COLD SHUTDOWN~~ within 42~~the following 30~~ 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 C

A3.3-18

A3.3-21

A3.3-29

ACTION 21: With one or two containment pressure ~~the number of OPERABLE~~ channels ~~less than the Total Number of Channels~~ inoperable, operation may proceed provided the first inoperable channel(s) is placed in the tripped condition within 6 hours and the second inoperable channel is placed in bypass within 6 hours or be in MODE 3 in 12 hours and MODE 4 in 18 hours ~~and the Minimum Channels OPERABLE requirement is met~~. One inoperable channel may be bypassed at a time for up to 4 hours for surveillance testing per Specification 4.1.

LCO3.3.2 Cond D,E

L3.3-58

L3.3-22

ACTION 22: With one radiation monitoring train inoperable, place and maintain inservice purge valves closed within 4 hours. With one or more manual or automatic actuation trains inoperable or two radiation monitoring trains inoperable or Required Actions and Completion Time of Condition A not met~~the number of OPERABLE channels less than the Total Number of Channels, the number of OPERBLE channels less than the Total Number of Channels,~~ operation may continue provided the

LCO3.3.5 Cond A

LCO3.3.5 Cond B and Cond. C

L3.3-53

A3.3-146

R-7

~~TABLE TS.3.5-2B~~
~~Page 7 of 9~~
~~Rev 111 8/10/94~~

~~TABLE 3.5-2B (Page 7 of 9) (Overflow)~~

LCO3.3.5 Cond B and Cond. C

containment inservice purge supply and exhaust valves are maintained closed (as required by ITS LCO 3.6.3 and 3.9.4).

A3.3-146

A3.3-54

R-7

ACTION 23: With one ~~the number of OPERABLE~~ channels or train inoperable ~~one less than the Total Number of Channels~~, restore the inoperable channel to OPERABLE status within 48 hours or be in at least MODE 3 ~~HOT SHUTDOWN~~ within 54~~the next 6~~ hours and in MODE 5 ~~COLD SHUTDOWN~~ within 84~~the following 30~~ hours.

LCO3.3.2 Cond B

A3.3-18

A3.3-21

A3.3-29

ACTION 24: With one channel inoperable ~~the number of OPERABLE channels one less than the Total Number of Channels~~, operation in the applicable MODE may proceed provided the following conditions are satisfied:

LCO3.3.2 Cond D,G

A3.3-18

a. The inoperable channel is placed in the tripped condition within 6 hours

LCO3.3.2 Cond D,G

or be in MODE 3 within 12 hours, and,

L3.3-22

LCO3.3.2 Cond D only

be in MODE 4 within 18 hours.

b. ~~The Minimum Channels OPERABLE requirement is met; however,~~ the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.1.

A3.3-18

~~TABLE TS.3.5-2B Page 7 of 9 (Overflow) Rev 111 8/10/94~~

3.6.D. Containment Purge System

1. The 36-inch containment purge system double gasketed blind flanges shall be installed whenever the reactor is above COLD SHUTDOWN. The 18-inch containment inservice purge system double gasketed blind flanges shall be installed whenever the reactor is above COLD SHUTDOWN except as noted below.

2. The inservice purge system may be operated above COLD SHUTDOWN if the following conditions are met:

   a. The debris screens are installed on the supply and exhaust ducts in containment.

   b. The two automatic primary containment isolation valves in each duct that penetrates containment shall satisfactorily pass a local leak rate test prior to use. Addressed Elsewhere

LCO3.3.5

~~cc.~~ The ~~two automatic primary~~ containment ventilation isolation instrumentation for each Function in Table 3.3.5-1 ~~valves and the automatic shield building ventilation damper in each duct that penetrates containment~~ shall be OPERABLE ~~including instruments and controls associated with them.~~ A3.3-147

LCO3.3.5 Cond B

~~dd.~~ ~~If an~~ One or more inservice purge system automatic actuation Functions ~~primary containment isolation valve or automatic shield building ventilation damper becomes~~ inoperable, ~~apply the requirements of Specification 3.6.C.3~~ enter applicable Conditions and Required Actions of LCO 3.6.3 for containment inservice purge valves made inoperable by isolation instrumentation. A3.3-148

R-7

   e. The blind flanges (i.e., 42B (53 in Unit 2) and 43A (52 in Unit 2)) shall be reinstalled and satisfactorily pass a local leak rate test, each time after the in-service purge system is used.

E. Auxiliary Building Special Ventilation Zone Integity Addressed Elsewhere

1. A reactor shall not be made or maintained critical nor shall reactor coolant system average temperature exceed 200°F unless AUXILIARY BUILDING SPECIAL VENTILATION ZONE INTEGRITY is maintained. If these conditions cannot be satisfied (except as specified in 3.6.E.2 and 3 below) within 24 hours initiate the actions necessary to place both units in HOT SHUTDOWN, and be in at least HOT SHUTDOWN within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. Openings in the Auxiliary Special Ventilation Zone are permitted provided they are under direct administrative control and can be reduced to less than 10 square feet within 6 minutes following an accident.

3. Valves and actuation circuits that isolate the Auxiliary Building Normal Ventilation System following an accident may be inoperable for 7 days provided the ventilation system can be manually isolated within 6 minutes following an accident.

3.8.A.1.c. The core subcritical neutron flux shall be continuously monitored by at least two neutron monitors, each with continuous visual indication in the control room and one with audible indication in the containment, which are in service whenever core geometry is being changed. When core geometry is not being changed, at least one neutron flux monitor shall be in service.

d. The plant shall be in the REFUELING condition.

e. During movement of fuel assemblies or control rods out of the reactor vessel, at least 23 feet of water shall be maintained above the reactor vessel flange. The required water level shall be verified prior to moving fuel assemblies or control rods and at least once every day while the cavity is flooded.

f. At least one residual heat removal pump shall be OPERABLE and running. The pump may be shut down for up to one hour to facilitate movement of fuel or core components.

g. If the water level above the top of the reactor vessel flange is less than 20 feet, except for control rod unlatching/latching operations or upper internals removal/replacement, both residual heat removal loops shall be OPERABLE.

h. Direst communication between the control room and the operating floor of the containment shall be available whenever CORE ALTERATIONS are taking place.

i. No movement of irradiated fuel in the reactor shall be made until the reactor has been subcritical for at least 100 hours.

Addressed Elsewhere

j. The ~~radiation~~ ~~monitors~~Containment Ventilation Isolation Instrumentation for each Function, including the high radiation in Exhaust Air monitors Function 3, ~~which initiate isolation of the Containment Purge System~~ shall be ~~tested and verified to be~~ OPERABLE in accordance with Table 3.3.5-1. ~~prior to CORE ALTERATIONS.~~

A3.3-149

LCO3.3.5 and APPLICABILITY

R-7

Addressed Elsewhere

2. If any of the above conditions are not met, CORE ALTERATIONS shall cease. Work shall be initiated to correct the violated conditions so that the specifications are met, and no operations which may increase the reactivity of the core shall be performed.

3. If Specification 3.8.A.1.f or 3.8.A.1.g cannot be satisfied, all fuel handling operations in containment shall be suspended, the requirements of Specification 3.8.A.1.a.1) shall be satisfied, at least one door in each personnel air lock shall be closed, and no reduction in reactor coolant boron concentration shall be made.

TABLE TS. 3.15-1 (Page 2 of 2)
EVENT MONITORING INSTRUMENTATION

(a) Action Statements

LCO3.3.3 Actions Note 2

Separate Action Statement entry is allowed for each Function.

LCO3.3.3 Cond A

1. With one required channel inoperable, either restore the required channel to OPERABLE status within 30 days,

LCO3.3.3 Cond C

~~or submit a report to the Commission within the following 14 days~~. Initiate action in accordance with Specification 5.6.8 immediately

A3.3-144

R-7

LCO3.3.3 Cond D

2. With two required channels inoperable, either restore one channel to OPERABLE status within 7 days

LCO3.3.3 Cond I

or be in at least MODE 3 within the next 6 hours.

LCO3.3.3 Cond D

3. With two required channels inoperable, either restore one channel to OPERABLE status within 7 days,

LCO3.3.3 Cond J

~~or submit a report to the Commission within the following 14 days~~. Initiate action in accordance with Specification 5.6.8 immediately.

A3.3-144

R-7

LCO3.3.3 Cond E

4. With two required channels inoperable, either restore one channel to OPERABLE status within 72 hours

LCO3.3.3 Cond I

or be in at least MODE 3 within the next 6 hours.

A3.3-69

LCO3.3.3 Cond H

New Condition H - enter Table 3.3.3-1 as required when other Conditions are not met.

~~Table TS.3.15-1 (Page 2 of 2) REV 121 11/9/95~~

~~TABLE TS. 3.15-1 (Page 2 of 2) (Overflow)~~

5. With the number of OPERABLE channels for the core exit thermocouples less than the Required Channels shown on Table TS.3.15-1, but with greater than or equal to 4 core exit thermocouples OPERABLE in the center core region and greater than or equal to one core exit thermocouple OPERABLE in each quadrant of the outside core region, restore the inoperable channels to OPERABLE status within 30 days,

LCO3.3.3 Cond B

or submit a report to the Commission within the next 14 days.

LCO3.3.3 Cond C

~~As a minimum, the Required Channels willwill be restoredrestored prior to startup startup following the nextthe next refueling outage.~~

A3.3-66

6. With ~~the~~ less than two core exit thermocouple channels OPERABLE in one or more quadrants, and with either less than 4 core exit thermocouple OPERABLE in the center region or less than one core exit thermocouple OPERABLE in each quadrant of the outside core region, restore the inoperable channels to OPERABLE status within 7 days,

LCO3.3.3 Cond F, G

R-7

or be in at least MODE 3 within the next 6 hours.

LCO3.3.3 Cond I

Table 3.3.3-1 Note a (b) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, ~~or~~ blind flange or check valve with flow through the valve secured.

L3.3-67

Table 3.3.3-1 Note b (c) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

~~Table TS.3.15-1 (Page 2 of 2) (Overflow) REV 12I 11/9/95~~

~~TABLE TS.4.1-1B (Page 2 of 7) (Overflow)~~

Table 3.3.5-1 Func 6	~~e~~6. Manual Containment Spray	See Functional Unit 2a above for all Manual Containment Spray Surveillance Requirements					
Table 3.3.5-1 Func 4	~~4d~~. Manual Containment Isolation	See Functional Unit 3b above for all Manual Containment Isolation Surveillance Requirements					
Table 3.3.5-1 Func 3	~~3e~~. High Radiation in Exhaust Air	~~SD~~[25] SR3.3.5.1	R SR3.3.5.5	M SR3.3.5.3	N.A.	See Note (26)	M3.3-145 R-7
Table 3.3.5-1 Func 2	~~2f~~. Automatic Actuation Relay Logic ~~and Actuation Relays~~	N.A.	N.A.	M[22] SR3.3.5.2	N.A.	See Note (26)	A3.3-35

~~TABLE TS.4.1-1B (Page 2 of 7) (Overflow) REV 111 8/10/94~~

TABLE TS.4.1-1B (Page 3 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
~~4~~5. STEAM LINE ISOLATION					Addressed
a. Manual	N.A.	N.A.	R	N.A.	1, 2, 3(23)
Table 3.3.2-1 b. Hi-Hi Containment Pressure	S SR3.3.2.1	R(27) SR3.3.2.6	Q SR3.3.2.3	N.A.	1, 2(23), 3(23)
Table 3.3.2-1 ~~d~~c. Hi-Hi Steam Flow with Safety Injection					
1. Hi-Hi Steam Flow	S SR3.3.2.1	R(27) SR3.3.2.6	Q SR3.3.2.3	N.A.	1, 2(23), 3(23)
2. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements				
Table 3.3.2-1 ~~c~~d. Hi Steam Flow and 2 of 4 Lo-Lo T_{avg} with Safety Injection					
1. Hi Steam Flow	S SR3.3.2.1	R(27) SR3.3.2.6	Q SR3.3.2.3	N.A.	1, 2(23), 3(23)
2. Lo-Lo T_{avg}	S SR3.3.2.1	R(27) SR3.3.2.6	Q SR3.3.2.3	N.A.	1, 2(23), 3(24)
3. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements				
Table 3.3.2-1 ~~a~~e. Automatic Actuation Relay Logic ~~and Actuation Relays~~	N.A.	N.A.	M(22) SR3.3.2.2	N.A.	1, 2(23), 3(23)

L3.3-42

L3.3-42

L3.3-42

L3.3-42

R-2

R-2

R-7

R-2

A3.3-35

~~TABLE TS.4.1-1B (Page 3 of 7)~~

TABLE TS.4.1-1C (Page 2 of 4)

MISCELLANEOUS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

A3.3-72

FUNCTIONAL UNIT	CHECK	CALIBRATE	~~FUNCTIONAL TEST~~	RESPONSE TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED	
~~13. Containment Sump A, B and C Level~~	~~N.A.~~	~~R~~	~~R~~	~~N.A.~~	~~1, 2, 3, 4~~	R3.3-115 R-7
~~14. Deleted~~						
~~15. Turbine First Stage Pressure~~	~~S~~	~~R~~	~~Q~~	~~N.A.~~	~~1~~	R3.3-115 R-7
~~16. Emergency Plan Radiation Instruments (35)~~	~~M~~	~~R~~	~~M~~	~~N.A.~~	~~1, 2, 3, 4, 5, 6~~	
~~17. Seismic Monitors~~	~~R~~	~~R~~	~~N.A.~~	~~N.A.~~	~~1, 2, 3, 4, 5, 6~~	R3.3-115 R-7
					LR3.3-116	
18. Coolant Flow - RTD Bypass Flowmeter	~~S~~	R SR3.3.1.12	~~M~~	N.A.	1, 2, ~~3~~ (34)	L3.3-117
~~19. CRDM Cooling Shroud Exhaust Air Temperature~~	~~S~~	~~N.A.~~	~~R~~	~~N.A.~~	~~1, 2, 3 (31), 4 (31), 5 (31)~~	R3.3-115 R-7
~~20. Reactor Cap Exhaust R Air Temperature~~	~~S~~ ~~N.A.~~	~~N.A.~~ ~~1, 2, 3, 4~~				R3.3-115 R-7
					A3.3-121	
21. Post-Accident Monitoring Instruments (Table TS.3.15-1) (36)	M SR3.3.3.1	R (41) SR3.3.3.2	~~N.A.~~ R (40) SR3.3.3.3	N.A.	1, 2	A3.3-143 R-7
~~22. Deleted~~						

SR3.3.1.12 Note 1

SR3.3.3.1
SR3.3.3.2
SR3.3.3.3

~~TABLE TS.4.1-1C (Page 2 of 4)~~
~~REV 121 11/9/95~~

TABLE TS.4.1-1C (Page 3 of 4)

MISCELLANEOUS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

A3.3-72

FUNCTIONAL UNIT	CHECK	CALIBRATE	~~FUNCTIONAL TEST~~	RESPONSE TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
~~23. Deleted~~					
~~24. Steam Exclusion Actuation~~	~~W~~	~~Y~~	~~M~~	~~N.A.~~	~~1, 2, 3~~
25. Overpressure Mitigation	N.A.	R	R	N.A.	4(38), 5
~~26. Auxiliary Feedwater Pump Suction Pressure~~	~~N.A.~~	~~R~~	~~R~~	~~N.A.~~	~~1, 2, 3~~
~~27. Auxiliary Feedwater Pump Discharge Pressure~~	~~N.A.~~	~~R~~	~~R~~	~~N.A.~~	~~1, 2, 3~~
~~28. NaOH Caustic Stand Pipe Level~~	~~W~~	~~R~~	~~M~~	~~N.A.~~	~~1, 2, 3, 4~~
29. Hydrogen Monitors	~~M~~S SR3.3.3.1	~~R~~Q SR3.3.3.2	~~M~~	N.A.	1, 2
~~30. Containment Temperature Monitors~~	~~M~~	~~R~~	~~N.A.~~	~~N.A.~~	~~1, 2, 3, 4~~
~~31. Turbine Overspeed Protection Trip Channel~~	~~N.A.~~	~~R~~	~~M~~	~~N.A.~~	~~1~~

R3.3-152

R-7

Addressed Elsewhere

R3.3-115

R-7

LR3.3-118

SR3.3.3.1
SR3.3.3.2

R3.3-115

R-7

~~TABLE TS.4.1-1C (Page 3 of 4) REV 121 11/9/95~~

~~TABLE TS.4.1-1C (Page 4 of 4) (Overflow)~~

L3.3-117

~~(34) When either main steam isolation valve is open.~~

A3.3-123

~~(35) Includes those instruments named in the emergency procedure.~~

~~(36) Except for containment hydrogen monitors and refueling water storage tank level which are separately specified in this table.~~

~~(37) When RHR is in operation.~~

Addressed Elsewhere

~~(38) When the reactor coolant system average temperature is less than the Over Pressure Protection System Enable Temperature specified in the PTLR.~~

~~(39) Whenever CONTAINMENT INTEGRITY is required.~~

SR3.3.3.3

(40) Applies only to Containment Isolation Valve Position Instrumentation in lieu of calibration.

A3.3-121

(41) Neutron detectors are excluded from CHANNEL CALIBRATION

A3.3-143

R-7

~~TABLE TS.4.1-1C (Page 4 of 4) (Overflow) REV 135 5/4/96~~

NSHD category	Change number 3.3-	Discussion of Change
M	009	Table 3.5-1, Function 10. The actual title for the time delays has been included to provide clarity on which time delays are under consideration. The time range for degraded voltage DG start time delay (Time Delay 2) has been narrowed to reflect the actual time delay implemented at PI. When new DG were installed in 1992 a large time delay was specified due to lack of operating experience with this new plant feature. Since the time delay range is narrower, this is a more restrictive change. This change is acceptable since it will assure that the plant operates with the proper time delay for this function.
	010	Not used.
	011	Not used.

NSHD category	Change number 3.3-	Discussion of Change
A	018	Table 3.5-2A and Table 3.5-2B, Actions. The CTS Action Statements are modified to be consistent with the format and content guidance of NUREG-1431. Since these changes do not add or remove any TS requirements, these are administrative changes. Any changes which do affect TS requirements are addressed separately.
A	019	Table 3.5-2A, Function 18 and Table 4.1-1A, Function 18. The title of this function has been revised to be consistent with the guidance of NUREG-1431 by deleting "and Interlock". The reactor trip system interlocks are addressed as a separate function and any changes in TS requirements are addressed in the Discussion of Change for this new function. Therefore, this title change is considered an administrative change.
	020	Not used.
A	021	Table 3.5-2A and Table 3.5-2B, Actions. The CTS Action Statements Mode titles have been replaced with the Mode numbers for consistency with NUREG-1431. Since the applicable Mode has not been changed, this is an administrative change. Also the Completion Times have been changed to require action times in total hours consistent with NUREG-1431 rather than the next increment of time as given in the CTS. Since the actual time to perform the actions is not changed this is also an administrative change.

NSHD category	Change number 3.3-	Discussion of Change
M	052	Table 3.5-2B, Function 8. A new condition of applicability is provided for the loss of power function which requires this function to be OPERABLE, "When associated DG is required to be OPERABLE by LCO 3.8.2, 'AC Sources - Shutdown'." Since this change places additional TS requirements on plant operations, this is a more restrictive change. This change is acceptable since it is generally consistent with current plant practices and does not cause the plant to be operated in an unsafe manner.
L	053	Table 3.5-2B, Action 22. In conformance with the guidance of NUREG-1431, this action statement has been modified to allow this system to continue operating for up to 4 hours with one train of radiation monitoring inoperable. The three radiation monitoring channels are configured so one channel monitors gaseous radiation in containment exhaust air, with the other two monitoring either gaseous or particulate containment exhaust air radiation. These two channels provide input to the other train, either of which will actuate the train. Since the containment radiation monitors measure gaseous and particulate parameters, a failure of a single channel could result in a loss of the radiation monitoring Function for certain events. Consequently, the failed channel must be restored to OPERABLE status. The 4 hours allowed to restore the affected train is justified by the low likelihood of events occurring during this interval, and recognition that the remaining train will respond to the events. Since this change may allow additional operating flexibility, this is a less restrictive change. This change is acceptable since it is usual to allow some time to operate with one train of equipment inoperable when the redundant train is operable and able to perform the safety function.
A	054	Table 3.5-2B, Action 22. Since this system is normally blind flanged and therefore not operating, this action statement is modified to reference the specifications which govern its operation. This change is only a clarification which does not change any specification requirements or affect plant operations, therefore; this is an administrative change.

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, Action 5. Action 5 was modified by deleting the following statement, "As a minimum, the Required Channels will be restored prior to startup following the next refueling outage." ITS LCO 3.0.1 and the rules of usage require that LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2 and 3.0.7. CTS Action 5 refers to the number of channels of the core exit thermocouples (CETs) that are required to be OPERABLE prior to startup. In the ITS conversion process, the CTS Mode of startup is defined as being MODE 2. This is consistent with ITS 3.3.3, Condition B which also requires that the required CETs be OPERABLE when in MODES 1, 2 and 3. Based on the fact that the CTS is consistent with the ISTS, in that the MODES of Applicability are the same, as now contained in LCO 3.0.1, and the rules of usage are the same, this is considered to be an Administrative change.

NSHD category	Change number 3.3-	Discussion of Change
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.
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.

NSHD category	Change number 3.3-	Discussion of Change
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.
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
R	115	Table 4.1-1C, Functions 13, 15, 16, 17, 19, 20, 26, 27, 28, 30, and 31. These instrument surveillance requirements are proposed to be relocated to the TRM since they do not meet the criteria of 10 CR 50.36 for inclusion in the Technical Specifications. For most of these instruments, a 10 CR 50.36 evaluation for the instrument follows, since that is the simplest means to show that a surveillance requirement on the instrument does not meet 10 CR 50.36 for inclusion in the Technical Specifications. Some of the systems which these instruments support do meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Those instruments are required to be operable by the system specification and the specific CTS surveillance requirement is relocated to the TRM. Each surveillance requirement or the instrument on which the surveillance requirement is required is evaluated separately as follows. Table 4.1-1C, Function 13, Containment Sump A, B and C Level This discussion of containment sump level does not include consideration of the containment sump B wide range indication which is included in ITS LCO 3.3.3. **Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.** The containment sump level instruments are installed instrumentation that are capable of indicating in the control room a significant abnormal degradation of the reactor coolant pressure boundary. However, this instrumentation is less sensitive to reactor coolant pressure boundary leakage than other instrumentation which is required by ITS LCO 3.4.16 and is not even included in the USAR Section 6.5 discussion of Reactor Coolant System Leakage Detection Systems. Therefore, this instrumentation is not "used to detect, and indicate" reactor coolant system leakage. Consequently, this instrumentation does not meet Criterion 1.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The containment sump level instruments are not a variable, design feature or operating restriction that is an initial condition of a design basis accident or transient; therefore this instrumentation does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The containment sump level instruments are components. However, they do not mitigate accidents and thus they not a primary success path for mitigating accidents. Therefore, the SES does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The containment sump level instruments are not modeled in the plant IPE and they are not components which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore this instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The containment sump level instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since containment sump level instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM

Table 4.1-1C, Function 15, Turbine First Stage Pressure

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The turbine first stage pressure instruments are installed components for indicating turbine pressure. This instrumentation does not detect degradation of the reactor coolant pressure boundary; therefore it does not meet Criterion 1.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The turbine first stage pressure instruments are not a variable, design feature or operating restriction; they are installed components. This instrumentation is not an initial condition of a design basis accident or transient; therefore it does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The turbine first stage pressure instruments are plant components. However, they do not mitigate accidents and thus they are not a primary success path for mitigating accidents. Therefore, this instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The turbine first stage pressure instrumentation is modeled in the plant IPE. However, they are not components which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore this instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

The turbine first stage pressure instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since turbine first stage pressure instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 16, Emergency Plan Radiation Instruments

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The emergency plan radiation instruments are used to gather environmental information following an accident which requires entry into the emergency plan. These instruments do not detect degradation of the reactor coolant pressure boundary; therefore they do not meet Criterion 1.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The emergency plan radiation instruments are not a variable, design feature or operating restriction. These instruments are not an initial condition of a design basis accident or transient; therefore they do not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The emergency plan radiation instruments are not plant structures, systems or components. They do not mitigate accidents and thus are not a primary success path for mitigating accidents. Therefore, these instruments do not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The emergency plan radiation instruments are not considered in the plant IPE and they are not a structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore these instruments do not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The emergency plan radiation instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since emergency plan radiation instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 17, Seismic Monitors

The seismic monitors (instrumentation) are used to record data for use in evaluating the effect of a seismic event. The seismic instrumentation is not used to mitigate a design basis accident (DBA) or transient.

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The seismic instrumentation is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Therefore the seismic monitors do not meet Criterion 1.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The seismic instrumentation is not a process variable, design feature or operating restriction that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The seismic instrumentation does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The seismic instrumentation is not assumed to function in the safety analysis. The seismic instrumentation is not a structure, system or component that is part of the primary success path for mitigating a DBA or transient. Therefore, the seismic instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The seismic instrumentation is not considered in the plant IPE and it is not a structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore the seismic instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

The seismic instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since seismic instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

Table 4.1-1C, Function 19, CRDM Cooling Shroud Exhaust Air Temperature

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The CRDM cooling shroud exhaust air temperature instrumentation is installed instrumentation for indicating the cooling air temperature above the reactor pressure vessel. This instrumentation is not used to detect degradation of the reactor coolant pressure boundary; therefore this instrumentation does not meet Criterion 1.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The CRDM cooling shroud exhaust air temperature instrumentation is not a variable, design feature or operating restriction that is an initial condition of a DBA or transient analysis. The CRDM cooling shroud exhaust air temperature instrumentation does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The CRDM cooling shroud exhaust air temperature instrumentation does not mitigate accidents and thus is not a primary success path for mitigating accidents. Therefore, the CRDM cooling shroud exhaust air temperature instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The CRDM cooling shroud exhaust air temperature instrumentation is not considered in the plant IPE and it is not a structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore this instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

The CRDM cooling shroud exhaust air temperature instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since CRDM cooling shroud exhaust air temperature instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 20, Reactor Gap Exhaust Air Temperature

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The reactor gap exhaust air temperature instrumentation is installed instrumentation for indicating the cooling air temperature around the reactor pressure vessel. This instrumentation is not used to detect degradation of the reactor coolant pressure boundary; therefore this instrumentation does not meet Criterion 1.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The reactor gap exhaust air temperature instrumentation is not a variable, design feature or operating restriction that is an initial condition of a design basis accident or transient. The reactor gap exhaust air temperature instrumentation does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The reactor gap exhaust air temperature instrumentation does not mitigate accidents and thus is not a primary success path for mitigating accidents. Therefore, the reactor gap exhaust air temperature instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The reactor gap exhaust air temperature instrumentation is not considered in the plant IPE and it is not a structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore reactor gap exhaust air temperature instrumentation does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

The reactor gap exhaust air temperature instrumentation does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since reactor gap exhaust air temperature instruments are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 26, Auxiliary Feedwater Pump Suction Pressure

The auxiliary feedwater (AFW) pump suction pressure instruments are part of the AFW system. The AFW system does meet the 10 CFR 50.36 criteria for inclusion in ITS and is included as Specification 3.7.5. In accordance with the definition of OPERABILITY and the Bases 3.7.5 LCO discussion, the system instrumentation must be OPERABLE for an AFW train to be OPERABLE. These AFW instruments are not proposed to be relocated to the TRM, but rather, the specific CTS surveillance requirements are proposed to be relocated to the TRM. Since the AFW trains are required by

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

ITS to be OPERABLE, including system instrumentation, the AFW pump suction pressure instruments are required by ITS to be calibrated and tested for functionality. Therefore the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 27, Auxiliary Feedwater Pump Discharge Pressure

The auxiliary feedwater (AFW) pump discharge pressure instruments are part of the AFW system. The AFW system does meet the 10 CFR 50.36 criteria for inclusion in ITS and is included as Specification 3.7.5. In accordance with the definition of OPERABILITY and the Bases 3.7.5 LCO discussion, the system instrumentation must be OPERABLE for an AFW train to be OPERABLE. These AFW instruments are not proposed to be relocated to the TRM, but rather, the specific CTS surveillance requirements are proposed to be relocated to the TRM. Since the AFW trains are required by ITS to be OPERABLE, including system instrumentation, the AFW pump discharge pressure instruments are required by ITS to be calibrated and tested for functionality. Therefore the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 28, NaOH Caustic Stand Pipe Level

The NaOH caustic stand pipe level instrumentation is part of the spray additive system. The spray additive system does meet the 10 CFR 50.36 criteria for inclusion in ITS and is included as Specification 3.6.6. In accordance with the definition of OPERABILITY and the Bases 3.6.6 LCO discussion, the system instrumentation must be OPERABLE

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

for the spray additive system to be OPERABLE. The NaOH caustic stand pipe level instrumentation is not proposed to be relocated to the TRM, but rather, the specific CTS surveillance requirements are proposed to be relocated to the TRM. Since the spray additive system is required by ITS to be OPERABLE, including system instrumentation, the NaOH caustic stand pipe level instrumentation is required by ITS to be checked, calibrated and tested for functionality. Therefore the SRs on this instrumentation can be relocated to the TRM.

Table 4.1-1C, Function 30, Containment Temperature Monitors

CTS does not have any LCOs for containment temperature monitoring in MODES 1, 2, 3 and 4 which means there are no specifications for the number of operable instruments, action statements, nor temperature limits. The containment temperature monitors do not provide indication on the control board; these are only available as computer data points. These CTS containment temperature monitor surveillance requirements (SRs) are performed with the event monitoring instrument surveillance requirements (ITS LCO 3.3.3). If a containment temperature instrument is determined to be inoperable, there are no TS required actions to be taken because there are no CTS LCO requirements for containment temperature monitoring in MODES 1, 2, 3 and 4. Since there are no CTS LCO requirements for containment temperature monitoring in MODES 1, 2, 3, and 4, NMC has not included containment temperature specification requirement in ITS for these MODES. Without LCOs for containment temperature in MODES 1, 2, 3, and 4, these SRs serve no purpose and are proposed to be relocated to the TRM.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

Table 4.1-1C, Function 31, Turbine Overspeed Protection Trip Channel

The turbine overspeed protection trip instrumentation provides a means to detect a turbine overspeed condition and trip the turbine.

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The turbine overspeed protection trip channel does not detect degradation of the reactor coolant pressure boundary; therefore this instrumentation does not meet Criterion 1.

Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The turbine overspeed protection trip channel is not a variable, design feature or operating restriction that is an initial condition of a design basis accident or transient; therefore this instrumentation does not meet Criterion 2.

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

NSHD category	Change number 3.3-	Discussion of Change
R	115	(continued)

The turbine overspeed protection trip channel does not mitigate accidents and thus is not a primary success path for mitigating accidents. Therefore, the turbine overspeed protection trip channel does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3.

Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The turbine overspeed protection trip channel is not considered in the plant IPE and it is not a structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore turbine overspeed protection trip channel does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

The turbine overspeed protection trip channel does not meet the 10 CFR 50.36 criteria for inclusion in the Technical Specifications. Since turbine overspeed protection trip channel are not required in ITS, the SRs on this instrumentation can be relocated to the TRM.

Based on the evaluations presented above, CTS surveillance requirements in Table 4.1-1C, Functions 13, 15, 16, 17, 19, 20, 26, 27, 28, 30 and 31 are proposed to be relocated to the TRM. This change is consistent with the guidance of NUREG-1431. These instruments will continue to be under regulatory controls through 10 CFR 50.59.

NSHD category	Change number 3.3-	Discussion of 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.
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.

NSHD category	Change number 3.3-	Discussion of 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.
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.

NSHD category	Change number 3.3-	Discussion of Change
L	125	CTS 3.10.C.4. CTS requires verification of the core quadrant power balance daily and after 10% power changes when one excore nuclear channel is inoperable and the power is above 85%. This change will require the core quadrant power balance to be verified every 12 hours under these conditions. This change is more restrictive since the 12 hour Frequency is twice daily. For power changes of 10% or more which occur in less than 12 hours this is a less restrictive change. Therefore this change is considered a less restrictive change. This change is acceptable since: 1) most power changes occur slowly such that the 12 hour Frequency is not a significant extension of the time for verification of the core power quadrant balance; 2) the QPTR changes occur relatively slowly when there are power changes; 3) large quadrant power tilts are likely to be detected with the remaining operable excore nuclear channels; 4) sudden significant quadrant power tilts are typically associated with other indications of abnormality (for example, a dropped rod) that prompt verification of core power tilt; and 5) the probability of an accident is very low during the time between a controlled 10% power change and the 12 hour SR performance Frequency. This change is consistent with the guidance of NUREG-1431.
A	126	CTS 3.10.C.4. CTS references CTS Specification 3.11. This change references ITS SR 3.2.4.2. Since there is not a substantive technical change, this is an administrative change.

NSHD category	Change number 3.3-	Discussion of 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 $\leq$ 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.

NSHD category	Change number 3.3-	Discussion of Change
A	143	CTS Table 4.1-1C. Footnote 41 has been added to CTS Post Accident Monitoring Instruments (Table 3.15-1). The Footnote is applicable when the CHANNEL CALIBRATION surveillance is required. The Footnote states, "Neutron detectors are excluded from CHANNEL CALIBRATION".PI CTS does not contain any requirements for specific NIS DETECTOR CALIBRATIONS. Therefore, this Footnote is applicable and consistent with both PI CTS and the ITS.
A	144	CTS Table 3.15-1 Action Statements (a)1. and 3. CTS Action Statements require a report be submitted to the Commission within the following 14 days in the condition where one or two required channels of event monitoring instrumentation is inoperable. This wording has been revised to require initiation of action in accordance with Specification 5.6.8. Specification 5.6.8 requires that a report is required to be submitted within the following 14 days as required by LCO 3.3.3 Condition C and J. This is an Administrative change since the Frequency and report initiating conditions are the same in both the CTS and ITS. The ITS is more specific on the contents of the subject report, however, they are still the same as the CTS. This change is consistent with NUREG-1431 and is considered to be an Administrative change.

NSHD category	Change number 3.3-	Discussion of Change
M	145	CTS Table 4.1-1B Function 4.e. CTS Function 4.e CHANNEL CHECK has been revised from daily (24 hours) to 12 hours in accordance with NUREG-1431. Performance of the CHANNEL CHECK 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 the other channels. The 12 hour 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. This is a more restrictive change since it reduces the SR Frequency from daily (24 hours) to 12 hours.

NSHD category	Change number 3.3-	Discussion of Change
A	146	CTS Table 3.5-2B, Action 22. CTS Action 22 states that "With the number of OPERABLE channels less than the Total Number of Channels, operation may continue provided the containment purge supply and exhaust valves are maintained closed." This Action applies to CTS Function 4.a Containment Ventilation Isolation - manual, 4.4 High Radiation in Exhaust Air, and 4.f Automatic Actuation Logic and Actuation Relays. CTS Action Statement 22 was revised as follows to be consistent with ISTS Condition A: with one radiation monitoring train inoperable, place and maintain inservice purge valves closed within 4 hours. Operation may continue provided the containment inservice purge supply and exhaust valves are maintained closed. Condition A only refers to the radiation monitors, CTS Table 3.5-2B, Function 4e. This is justified by DOC L3.3-53. CTS Action Statement 22 has further been revised to incorporate ISTS LCO 3.3.5, Condition B and Condition C by stating, "With one or more manual or automatic actuation trains inoperable or two radiation monitoring trains inoperable or Required Actions and Completion Time of Condition A not met, operation may continue provided the containment inservice purge supply and exhaust valves are maintained closed (as required by ITS LCO 3.6.3 and 3.9.4)." This Condition covers the rest of the Containment Ventilation Isolation instrumentation in CTS Table 3.5-2B, including the Manual and Automatic Actuation Relay Logic Containment Ventilation Isolation instrumentation functions. This change is considered to be an Administrative change since the Conditions in the ITS are essentially the same as the intent of the CTS and consistent with current plant operating practices.

NSHD category	Change number 3.3-	Discussion of Change
A	147	CTS 3.6.D. CTS 3.6.D.2.c requires that two automatic primary containment isolation instrumentation valves and the automatic shield building ventilation damper in each duct that penetrates containment shall be OPERABLE including instruments and controls associated with them. This has been revised to state, "The Containment Ventilation Isolation instrumentation for each Function in Table 3.3.5-1 shall be OPERABLE." This is now LCO 3.3.5. The CTS refers to the automatic primary containment isolation valves and the automatic shield building ventilation damper which are part or the Containment Inservice Purge System as discussed in the ITS Bases. The Containment Ventilation Isolation instrumentation closes the containment isolation valves in the Containment Inservice Purge System upon a Safety Injection signal, manual actuation of Containment Isolation, or by manual actuation of containment spray. The Bases for LCO 3.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation," discuss these modes of initiation. CTS 3.6.D.2.c also specifies the number of valves and dampers in each duct that penetrates containment for OPERABILITY. The number of channels, trains, or valves for Function OPERABILITY are contained in ITS Table 3.3.5-1 with Conditions A and B providing Required Actions and Completions Times associated with the LCO not being met. Since the ITS provides the same requirements as CTS, there are administrative changes involving format and presentation of requirements.

NSHD category	Change number 3.3-	Discussion of Change
A	148	CTS 3.6.D.2.d. CTS states, "If an inservice purge system automatic primary containment isolation valve or automatic shield building ventilation damper becomes inoperable, apply the requirements of Specification 3.6.C.3." This CTS action statement was revised, as ITS Condition B, requiring that with one or more inservice purge Functions inoperable, enter applicable Conditions and Required Actions of LCO 3.6.3 for containment inservice purge valves made inoperable by isolation instrumentation." The CTS specifically states the inservice purge system automatic primary containment isolation valve or automatic shield building ventilation damper. Actually, the automatic primary containment isolation valve and the automatic shield building ventilation damper are part (components) of the inservice purge system. The ITS does not distinguish between the parts of the inservice purge system; thus Condition B only identifies the System itself. In accordance with the definition of OPERABILITY, all parts of a System are required to be OPERABLE in order to declare the System OPERABLE. Therefore it is not necessary to specifically identify the parts or components making up the System. This is considered to be an Administrative change since it only involves combining several components within a specific System instead of specifying the components themselves. The CTS provided a requirement to apply the requirements of Specification 3.6.C.3 in the event the inservice purge system automatic primary containment isolation valve or automatic shield building ventilation damper becomes inoperable. This was replaced with ITS Required Action B.2 requiring entry into applicable

NSHD category	Change number 3.3-	Discussion of Change
A	148	(continued) Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves." for containment inservice (low flow) purge valves made inoperable by isolation instrumentation. LCO 3.6.3 contains essentially the same actions as CTS 3.6.C.3. Therefore; this change is considered to be Administrative since it primarily involves editorial issues and does not change any technical content of the CTS. Based on the above evaluation, the changes associated with this DOC are considered to be Administrative and consistent with NUREG-1431.

NSHD category	Change number 3.3-	Discussion of Change
A	149	CTS 3.8.A.1.j. CTS 3.8.A.1.j states the radiation monitors which initiate isolation of the Containment Purge System shall be tested and verified to be OPERABLE prior to CORE ALTERATIONS. The ITS has revised this statement to say that the Containment Ventilation Isolation Instrumentation for each Function, including the High Radiation in Exhaust Air monitors Function 3, shall be OPERABLE in accordance with Table 3.3.5-1. This is an Administrative change since there are no technical changes made to this Specification. The only changes provide clarification to the CTS and utilizes wording and format consistent with NUREG-1431. The CTS refers to the radiation monitors which initiate isolation of the Containment Purge System. This is more accurately defined as the High Radiation in Exhaust Air monitors listed in Table 3.3.5-1, Function 3. In addition, the CTS requires this Function to be tested and verified to be OPERABLE prior to CORE ALTERATIONS. This statement has been revised to clearly state that the Functions shall be OPERABLE in accordance with Table 3.3.5-1. Based on the definition of OPERABLITY, the Function must successfully complete and meet its SR requirements in order to be declared OPERABLE. The SR testing and Frequency required in the CTS is the same as required by the ITS. Based on the above, this change is considered to be Administrative.

NSHD category	Change number 3.3-	Discussion of Change
A	150	CTS Table 3.5-2B, Function 8. CTS does not explicitly state that separate Condition entry is allowed for each Function. In conformance with the guidance of NUREG-1431, a Note is included in ITS LCO 3.3.4 does explicitly state that separate Condition entry is allowed for each Function. This change is an administrative change since the CTS sub-Functions, Degraded Voltage and Undervoltage, independently perform their functions and, in CTS, the action statements could be entered for each sub-Function.
A	151	CTS Table 3.5-2B, Function 8. A new Function 8c, Automatic Load Sequencers, is included in ITS LCO 3.3.4. Although this Function is not explicitly included in CTS, certain TS action would be required by the plant if a load sequencer becomes inoperable. These actions would be necessary to assure the plant is operated in a safe manner. These same actions have been included in ITS. Since the ITS Required Actions are nominally the same as current plant practices, this is an administrative change. This change is acceptable because ITS and CTS actions are equivalent.
R	152	The Steam Exclusion System (SES) actuation instrumentation and the associated setpoint have been relocated to the TRM since the system and associated instrumentation do not meet the criteria of 10 CR 50.36 for inclusion in the Technical Specifications. **Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.**

NSHD category	Change number 3.3-	Discussion of Change
R	152	The Steam Exclusion System (SES) is an installed system for preventing steam from high energy line breaks from reaching safeguards equipment. This system does not detect degradation of the reactor coolant pressure boundary; therefore SES does not meet Criterion 1. **Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.** The SES is not a variable, design feature or operating restriction; it is an installed system. This system is not an initial condition of a design basis accident or transient; therefore SES does not meet Criterion 2. **Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.** The SES is a plant system. However, it does not mitigate accidents and thus is not a primary success path for mitigating accidents. Therefore, the SES does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 3. **Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.** The SES is not considered in the plant IPE and it is not a system which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Therefore this system does not meet 10 CFR 50.36 (c)(2)(ii) Criterion 4.

NSHD category	Change number 3.3-	Discussion of Change
R	152	Based on this evaluation, the SES instrumentation and associated setpoint are proposed to be relocated to the TRM.

Table 3.3.2-1 (page 5 of 8)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TA3.3-176 ~~TRIP SETPOINT (a)~~
4. Steam Line Isolation (continued)						
~~f. High Steam Flow in Two Steam Lines~~	~~1,2 (i),~~ 3 (i)	~~2 per steam line~~	~~B~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~(e)~~	~~(f)~~
~~Coincident with Steam Line Pressure – Low~~	~~1,2, (i)~~ 3 (i)	~~1 per steam line~~	~~B~~	~~SR 3.3.2.1~~ ~~SR 3.3.2.5~~ ~~SR 3.3.2.9~~ ~~SR 3.3.2.10~~	~~≥ [635] (c) psig~~	~~≥ [675] (c) psig~~
~~c~~g. High Steam Flow	CL3.3-256 1,2 (c) (d), 3 (c) (d)	2 per steam line	D	SR 3.3.2.1 SR 3.3.2.35 SR 3.3.2.69 CL3.3-237 ~~SR 3.3.2.10~~	X3.3-177 ≤ XXXXX lb/hr at 1005 psig ~~[25]% of full steam flow at no load steam pressure~~	~~≤ [ ] full steam flow at no load steam pressure~~ R-7
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
and						
Coincident with Low-Low T_{avg} – ~~Low Low~~	1,2 (c), 3 (c) (d) ~~(i)~~ CL3.3-256	4 ~~[2] per loop~~ CL3.3-253	D	SR 3.3.2.1 SR 3.3.2.35 SR 3.3.2.69 CL3.3-237 ~~SR 3.3.2.10~~	X3.3-177 ≥ 536 ~~[550.6]~~°F	~~≥ [553]°F~~ R-7

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TA3.3-176 ~~TRIP SETPOINT (a)~~
~~dh.~~ High High Steam Flow	1,2 (~~ci~~), 3 (~~ci~~)	2 per steam line	D	SR 3.3.2.1 SR 3.3.2.3~~5~~ SR 3.3.2.6~~9~~ CL3.3-237 ~~SR 3.3.2.10~~	CL3.3-242 ≤ 4.5E6 lb/hr at 735 psig~~[130]% of full steam flow at full load steam pressure~~	~~≤ [ ] of full steam flow at full load steam pressure~~
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					

(continued)

~~(a) Reviewer's Note. Unit specific implementations may contain only Allowable Value depending on Setpoint Study methodology used by the unit.~~ TA3.3-176

(~~ci~~) Except when both~~all~~ MSIVs are closed ~~and [de-activated]~~. CL3.3-254

(~~dd~~) Reactor Coolant System (RCS) T_{avg} ≥~~Above~~ 520 °F~~the P-12 (T_{avg} - Low Low) interlock~~. CL3.3-256

3.3 INSTRUMENTATION

3.3.3 Event~~Post Accident~~ Monitoring (~~EPAM~~) Instrumentation CL3.3-281

LCO 3.3.3 The ~~EPAM~~ instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: MODES 1~~,~~ and 2~~, and 3~~. CL3.3-282

ACTIONS

----------NOTES----------
1. LCO 3.0.4 is not applicable.

2. Separate Condition entry is allowed for each Function.

---------- R-7

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ---------NOTE--------- Not applicable to CETs. ---------- One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days CL3.3-283

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more required CETs channel(s) inoperable. AND At least 4 CETs OPERABLE in the center region of the core. AND At least one CET OPERABLE in each quadrant of the outside core region.	B.1 Restore required CET channel(s) to OPERABLE status.	30 days CL3.3-283
~~C~~B. Required Action and associated Completion Time of Condition A or B not met.	~~C~~B.1 Initiate action in accordance with Specification 5.6.8.	Immediately R-7
~~D~~C. -------NOTE------- Not applicable to hydrogen monitor or CET channels. ---------- One or more Functions with two required channels inoperable.	~~D~~C.1 Restore one channel to OPERABLE status.	7 days CL3.3-283

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~E.~~ Two hydrogen monitor channels inoperable.	~~E.~~1 Restore one hydrogen monitor channel to OPERABLE status.	72 hours
F. Three or more required CET channels inoperable in one or more quadrants. AND Less than four CET channels OPERABLE in the center region of the core.	F.1 Restore required channels to OPERABLE status.	7 days R-7 CL3.3-283
G. Three or more required CET channels inoperable in one or more quadrants. AND Less than one CET channel OPERABLE in each quadrant of the outside core region.	G.1 Restore required channels to OPERABLE status.	7 days R-7 CL3.3-283

ACTIONS (continued)

CONDITION		REQUIRED ACTION		COMPLETION TIME
~~HE~~.	Required Action and associated Completion Time of Condition ~~C or D~~, E, F or G not met.	~~HE~~.1	Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately
~~IF~~.	As required by Required Action ~~HE~~.1 and referenced in Table 3.3.3-1.	~~IF~~.1 ~~AND~~ ~~F.2~~	Be in MODE 3. ~~Be in MODE 4.~~	6 hours ~~12 hours~~ CL3.3-285
~~JG~~.	As required by Required Action ~~HE~~.1 and referenced in Table 3.3.3-1.	~~JG~~.1	Initiate action in accordance with Specification 5.6.8.	Immediately R-7

SURVEILLANCE REQUIREMENTS

----------NOTE----------

PA3.3-287

SR 3.3.3.1 and SR 3.3.3.2 apply to each ~~EPAM~~ instrumentation Function in Table 3.3.3-1, except Function 9. SR 3.3.3.3 applies only to Function 9.

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R-7

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days CL3.3-172
SR 3.3.3.2	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. ---------- Perform CHANNEL CALIBRATION.	24~~[18]~~ months CL3.3-287
SR 3.3.3.3	----------NOTE---------- Verification of setpoint is not required. ---------- Perform TADOT.	24 months

R-2

R-2

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. --------NOTE-------- Only applicable to Functions a and b. ---------- One or more Functions with one channel per bus inoperable.	A.1 ~~--------NOTE--------~~ ~~The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels.~~ ~~----------~~ Place channel in bypass~~trip~~.	6 hours R-7 CL3.3-315
~~B. One or more Functions with two or more channels per bus inoperable.~~	~~B.1 Restore all but one channel to OPERABLE status.~~	~~1 hour~~ CL3.3-316

(continued)

B~~C~~. ---------NOTE--------- Only applicable in MODE 1, 2, 3, or 4. ---------- Required Action and associated Completion Time of Condition A not met. OR Function a or b or both with two channels per bus inoperable.	B~~C~~.1 ~~Enter applicable Condition(s) and Required Action(s) for the associated DG made inoperable by LOP DG start instrumentation.~~ Perform SR 3.3.4.2 for OPERABLE automatic load sequencer.	~~Immediately~~ 6 hours CL3.3-317 AND Once per 24 hours thereafter R-1

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ---------NOTE--------- Only applicable in MODE 1, 2, 3, or 4 when the Containment Inservice Purge System is not isolated. ----------	B.1 Place and maintain containment inservice (low flow) purge valves in closed position.	Immediately CL3.3-333 CL3.3-344
	OR	
One or more Functions (except radiation monitors) with one or more manual or automatic actuation trains inoperable.	B.2 Enter applicable Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves," for containment inservice (low flow) purge ~~and exhaust isolation~~ valves made inoperable by isolation instrumentation.	Imme CL3.3-331 diately
OR		
Two ~~or more~~ radiation monitoring trains ~~channels~~ inoperable.		
OR		
Required Action and associated Completion Time of Condition A not met.		

R-7

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ---------NOTE--------- Only applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated. ---------- One or more Functions (except radiation monitors) with one or more manual or automatic actuation trains inoperable. OR Two ~~or more~~ radiation monitoring trains ~~channels~~ inoperable. OR Required Action and associated Completion Time for Condition A not met.	C.1 Place and maintain containment inservice (low flow) purge ~~and exhaust~~ valves in closed position. OR C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment inservice (low flow) purge ~~and exhaust isolation~~ valves made inoperable by isolation instrumentation.	Immediately CL3.3-331 CL3.3-344 Immediately R-7 CL3.3-333

Table 3.3.5~~6~~-1 (page 1 of 1)
Containment Ventilation ~~Purge and Exhaust~~ Isolation Instrumentation

	FUNCTION	TA3.3-332 APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE ~~TRIP SETPOINT~~ TA3.3-176
1.	Manual Initiation	1[a], 2[a], 3[a], 4[a], (b)	2	SR 3.3.5.4~~6.6~~	NA
2.	Automatic CL3.3-337 Actuation Relay Logic ~~and Actuation Relays~~	1[a], 2[a], 3[a], 4[a], (b)	2 trains	SR 3.3.5~~6~~.2 CL3.3-233 ~~SR 3.3.6.3~~ ~~SR 3.3.6.5~~	NA
3.	High Radiation in Exhaust Air ~~Containment Radiation~~	1[a], 2[a], 3[a], 4[a], (b)	CL3.3-333 2 trains	SR 3.3.5.1 SR 3.3.5.3 SR 3.3.5.5	(c) CL3.3-341
	~~a. Gaseous~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~
	~~b. Particulate~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~
	~~c. Iodine~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~
	~~d. Area Radiation~~		~~[1]~~	~~SR 3.3.6.1~~ ~~SR 3.3.6.4~~ ~~SR 3.3.6.7~~	~~≤ [2 x background]~~
4.	Manual Containment Isolation — ~~Phase A~~	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for ~~all~~ initiation functions and requirements.			TA3.3-332 CL3.3-342
5.	Safety Injection	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for initiation functions and requirements.			CL3.3-343

R-7

6.	Manual Containment Spray	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 2, for initiation functions and requirements.	CL3.3-343 R-7

(a) When the Containment Inservice Purge System is not isolated. CL3.3-344

(b) During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated.

(c) ≤ count rate corresponding to 500 mrem/year whole body and 3000 mrem/year skin due to noble gases at the site boundary. CL3.3-341 R-7

PA3.3-356

BASES

~~These Functions must be OPERABLE in MODES 1 and 2, and in MODE 3, when a secondary side break or stuck open valve could result in the rapid depressurization of the steam lines unless all MSIVs are closed and [de-activated]. These Functions are not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to have an accident.~~

cg. Steam Line Isolation – High Steam Flow Coincident With Safety Injection and Coincident With Low Low T_{avg} – ~~Low-Low (Two Loop Units)~~

R-7

This Function provides closure of the MSIVs during an SLB or inadvertent opening of an SG ~~relief or~~ safety valve to maintain at least one unfaulted SG as a heat sink for the reactor~~, and to limit the mass and energy release to containment~~.

CL3.3-419

CL3.3-418

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

~~g.~~ ~~Steam Line Isolation – High Steam Flow Coincident With Safety Injection and Coincident With T_{avg} – Low-Low (Two Loop Units) (continued)~~

Two steam line flow channels per steam line are required OPERABLE for this Function. These are combined in a one-out-of-two logic to indicate high steam flow in one steam line. The steam flow transmitters provide control inputs, but the control function cannot cause the events that the function must protect against. Therefore, two channels are sufficient to satisfy redundancy requirements. The one-out-of-two configuration allows online testing because trip of one high steam flow channel is not sufficient to cause initiation.

(continued)

R-7

PA3.3-356

BASES

The High Steam Flow Allowable Value is a ΔP corresponding to XXXXX lb/hr~~25% of full steam flow~~ at 1005 psig~~no load steam pressure. The Trip Setpoint is similarly calculated~~. X3.3-177 TA3.3-176

~~With the transmitters (d/p cells) typically located inside the steam tunnels, it is possible for them to experience adverse environmental conditions during an SLB event. Therefore, the Trip Setpointsreflect both steady state and adverse environmental instrument uncertainties.~~ CL3.3-477

The main steam line isolates ~~only~~ if the H~~h~~igh S~~s~~team F~~f~~low signal occurs coincident with an SI signal and L~~l~~ow L~~l~~ow RCS average temperature. The Main Steam Line Isolation Function requirements for the SI Functions are the same as the requirements for their SI function. Therefore, the requirements are not repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements. R-7

Two channels of T_{avg} per loop are required to be OPERABLE. The T_{avg} channels are combined in a logic such that two channels tripped cause a trip for the parameter. The accidents that this Function protects against cause reduction of T_{avg} in the entire primary system. Therefore, the provision of two OPERABLE channels per loop in a

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

~~g. Steam Line Isolation – High Steam Flow Coincident With Safety Injection and Coincident With T_{avg} – Low-Low (Two Loop Units) (continued)~~

(continued)

PA3.3-356

BASES

two-out-of-four configuration ensures no single random failure disables the Low Low T_{avg} ~~Low Low~~ Function. The T_{avg} channels provide control inputs, but the control function cannot initiate events that the Function acts to mitigate. Therefore, additional channels are not required to address control protection interaction issues.

With the T_{avg} resistance temperature detectors (RTDs) located inside the containment, it is possible for them to experience adverse environmental conditions during an SLB event. Therefore, the Allowable Value~~Trip Setpoint~~ reflects both steady state and adverse environmental instrumental uncertainties. TA3.3-176

This Function must be OPERABLE in MODES 1 and 2, and in MODE 3, when T_{avg} is above 520 °F~~the P-12 setpoint~~, when a secondary side break or stuck open valve could result in rapid depressurization of the steam lines. ~~Below P-12 this Function is not required to be OPERABLE because the High High Steam Flow coincident with SI Function provides the required protection.~~ The Steam Line Isolation Function is required to be OPERABLE in MODES 2 and 3 unless both~~all~~ MSIVs are closed ~~and [de-activated]~~. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to have an accident. CL3.3-256 CL3.3-420 CL3.3-254

d~~h~~. Steam Line Isolation – High High Steam Flow Coincident With Safety Injection ~~(Two Loop Units)~~

This Function provides closure of the MSIVs during a SLB~~steam line break (or inadvertent opening of a relief or safety valve)~~ to maintain CL3.3-419 CL3.3-418

(continued)

PA3.3-356

BASES

at least one unfaulted SG as a heat sink for the reactor~~, and to limit the mass and energy release to containment~~.

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

~~h. Steam Line Isolation – High High Steam Flow Coincident With Safety Injection (Two Loop Units) (continued)~~

Two steam line flow channels per steam line are required to be OPERABLE for this Function. These are combined in a one-out-of-two logic to indicate high steam flow in one steam line. The steam flow transmitters provide control inputs, but the control function cannot cause the events that the Function must protect against. Therefore, two channels are sufficient to satisfy redundancy requirements.

The Allowable Value for High H~~h~~igh S~~s~~team F~~f~~low is a ΔP~~,~~ corresponding to ≤ 4.5E6 lb/hr~~130% of full steam flow~~ at 735 psig~~full steam pressure.~~ ~~The Trip Setpoint is similarly calculated.~~ CL3.3-242 TA3.3-176

With the transmitters ~~typically~~ located inside containment~~the steam tunnels~~, it is possible for them to experience adverse environmental conditions during an SLB event. Therefore, the ~~Trip Setpoint~~Allowable Value reflects both steady state and adverse environmental instrument uncertainties. TA3.3-176

The main steam lines isolate ~~only~~ if the High H~~h~~igh S~~s~~team F~~f~~low signal occurs coincident with an SI signal. The Main Steam Line Isolation Function requirements for the SI Functions are the same as the requirements for their SI function. Therefore, the requirements are not

(continued)

PA3.3-356

BASES

repeated in Table 3.3.2-1. Instead, Function 1, SI, is referenced for all initiating functions and requirements.

This Function must be OPERABLE in MODES 1, 2, and 3 when a secondary side break ~~or stuck open valve~~ could result in rapid depressurization of the steam lines unless both~~all~~ MSIVs are closed ~~and [de-activated]~~. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to have an accident.

CL3.3-419

CL3.3-254

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

5. ~~Turbine Trip and~~ Feedwater Isolation

The primary functions of the ~~Turbine Trip and~~ Feedwater Isolation signals ~~are to prevent damage to the turbine due to water in the steam lines, and~~ is to limit containment pressurization during an SLB~~stop the excessive flow of feedwater into the SGs~~. ~~These~~This Function~~s are necessary to~~ also mitigates the effects of a high water level in the SGs, which could result in carryover of water into the steam lines and excessive cooldown of the primary system. The SG high water level is due to excessive feedwater flows.

CL3.3-257

CL3.3-405

The Function ~~is actuated when the level in any SG exceeds the high high setpoint, and~~ performs the following ~~functions~~:

- Trips the main turbine;
- Trips the main feedwater (MFW) pumps;
- ~~Initiates feedwater isolation;~~ and

(continued)

PA3.3-356

BASES

- Shuts the MFW regulating valves (MFRVs) and the MFRV bypass ~~feedwater regulating~~ valves.

This Function is actuated by High High SG Water Level – ~~High High~~, or by an SI signal. ~~The RTS also initiates a turbine trip signal whenever a reactor trip (P-4) is generated~~. In the event of SI, the unit is taken off line ~~and the turbine generator must be tripped~~. The MFW System is also taken out of operation and the AFW System is automatically started. The SI signal was discussed previously. CL3.3-257

a. ~~Turbine Trip and~~ Feedwater Isolation – Automatic Actuation Relay Logic ~~and Actuation Relays~~ CL3.3-257 CL3.3-238

The feedwater isolation ~~Automatic A~~actuation l~~L~~ogic ~~and Actuation Relays~~ consists of all circuitry housed within the ESF relay logic cabinets for the feedwater isolation subsystem, ~~the same features and operate~~ in the same manner as described for ESFAS Function 1.b. PA3.3-403

This Function must be OPERABLE in MODES 1, 2, and 3, except when all MFRV's and associated bypass valves are closed and in manual or isolated by a closed non-automatic valve, when a secondary side break could result in significant containment pressurization. This Function is not required to be OPERABLE in MODES 4, 5, and 6 because there is insufficient energy in the secondary side of the unit to cause an accident. CL3.3-423 CL3.3-405

b. ~~Turbine Trip and~~ Feedwater Isolation – High High Steam Generator Water Level – ~~High High (P-14)~~ CL3.3-257

This signal provides protection against excessive feedwater flow. The ~~ESFAS~~ SG water level

(continued)

PA3.3-356

BASES

~~APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY~~

~~b. Turbine Trip and Feedwater Isolation – Steam Generator Water Level – High High (P-14) (continued)~~

instruments provide input to the Feedwater~~SG Water Level~~ Control System. Therefore, the actuation logic must be able to withstand both an input failure to the control system (which may then require the protection function actuation) and a single failure in the other channels providing the protection function actuation. Median signal selection is used in the Feedwater Control System. Thus, three~~four~~ OPERABLE channels are sufficient~~required~~ to satisfy the requirements with a two-out-of-~~four~~three logic. ~~For units that have dedicated protection and control channels, only three protection channels are necessary to satisfy the protective requirements. For other units that have only three channels, a median signal selector is provided or justification is provided in NUREG-1218 (Ref. 7).~~

CL3.3-377

The transmitters (d/p cells) are located inside containment. However, the events that this Function protects against cannot cause a severe environment in containment. Therefore, the ~~Trip Setpoint~~Allowable Value reflects only steady state instrument uncertainties.

TA3.3-176

This Function must be OPERABLE in MODES 1 and 2, except when all MFRV's and associated bypass valves are closed and in manual or isolated by a closed non-automatic valve. In MODES 3, 4, 5, and 6, the MFW System and the turbine generator are normally not in service and this Function is not required to be OPERABLE.

CL3.3-423

(continued)

PA3.3-356

CL3.3-281

BASES

separately for each Function starting from the time the Condition was entered for that Function.

R-7

A.1

Condition A applies when one or more Functions have one required channel that is inoperable. Required Action A.1 requires restoring the inoperable channel to OPERABLE status within 30 days. The 30 day Completion Time is based on operating experience and takes into account the remaining OPERABLE channel ~~(or in the case of a Function that has only one required channel, other non-Regulatory Guide 1.97 instrument channels to monitor the Function)~~, the passive nature of the instrument (no critical automatic action is assumed to occur from these instruments), and the low probability of an event requiring ~~PAEM~~ instrumentation during this interval.

CL3.3-471

A Note has been added stating that Condition A is not applicable to the CETs. The CETs are controlled under Conditions B, F, and G.

CL3.3-283

B.1

Condition B applies when there is one or more required CET channel(s) inoperable and with at least 4 CETs OPERABLE in the center region of the core, and at least one CET OPERABLE in each quadrant of the outside core region. Required Action B.1 requires restoring the required CET channel(s) to OPERABLE status within 30 days. The 30 day Completion Time is acceptable based on operating experience and takes into account the remaining OPERABLE CETs, and the low probability of an event requiring EM Instrumentation during this interval.

CL3.3-283

(continued)

PA3.3-356

CL3.3-281

BASES

BC.1

CL3.3-283

Condition C~~B~~ applies when the Required Action and associated Completion Time for Condition A or B are not met. This Required Action specifies initiation of actions in Specification 5.6.8, a written report to be submitted to the NRC immediately. This report discusses the results of the root cause evaluation of the inoperability and identifies proposed restorative actions. This action is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability, and given the likelihood of unit conditions that would require information provided by this instrumentation.

R-7

~~C~~D.1

Condition D~~C~~ applies when one or more Functions have two inoperable required channels (i.e., two channels inoperable in the same Function). Required Action D~~C~~.1 requires restoring one channel in the Function(s) to OPERABLE status within 7 days. The Completion Time of 7 days is based on the relatively low probability of an event requiring ~~PAEM~~ instrument operation and the availability of alternate means to obtain the required information. Continuous operation with two required channels inoperable in a Function is not acceptable because the alternate indications may not fully meet all performance qualification requirements applied to the ~~PAEM~~ instrumentation. Therefore, requiring restoration of one inoperable channel of the Function limits the risk that the ~~PAEM~~ Function will be in a degraded condition

(continued)

PA3.3-356

CL3.3-281

BASES

~~GJ.1~~

~~At this unit,~~ ~~a~~Alternate means (e.g., CETs) of monitoring Reactor Vessel Water Level and Containment Area Radiation have been developed and tested. These alternate means may be temporarily installed if the normal ~~PAEM~~ channel cannot be restored to OPERABLE status within the allotted time. If these alternate means are used, the Required Action is not to shut down the unit but rather to follow the directions of Specification 5.6.8, in the Administrative Controls section of the TS. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed ~~PAEM~~ channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal ~~PAEM~~ channels.

CL3.3-474

R-7

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that SR 3.3.3.1 and SR 3.3.3.2 apply to each ~~PEM~~ instrumentation Function in Table 3.3.3-1, except Function 9. SR 3.3.3.3 only applies to Function 9.

PA3.3-287

R-7

SR 3.3.3.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross instrumentation failure 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. Significant deviations between the two instrument channels could be an

(continued)

PA3.3-356 PA3.3-311 X3.3-312

BASES

LCO

The LCO for 4 kV safeguards bus voltage~~LOP DG start~~ instrumentation requires that two~~[three]~~ channels per bus of both the UV~~loss of voltage~~ and DV~~degraded voltage~~ Functions, and two trains of automatic load sequencers, shall be OPERABLE in MODES 1, 2, 3, and 4~~ when the LOP DG start instrumentation supports safety systems associated with the ESFAS~~. In MODES 5 and 6, the two~~[three]~~ channels and the associated load sequencer must be OPERABLE whenever the associated DG is required to be OPERABLE to ensure that the automatic start of the DG is available when needed. A UV or DV channel is OPERABLE when it is capable of actuating the load sequencer. Loss of the 4 kV Safeguards Bus Voltage~~LOP DG Start~~ Instrumentation Function could result in the delay of safety systems initiation when required. This could lead to unacceptable consequences during accidents.~~ During the loss of offsite power the DG powers the motor driven auxiliary feedwater pumps. Failure of these pumps to start would leave only one turbine driven pump, as well as an increased potential for a loss of decay heat removal through the secondary system.~~

R-7

CL3.3-318

A channel is OPERABLE with a trip setpoint outside its calibration tolerance band provided the trip setpoint "as-found" value does not exceed its associated Allowable Value and provided the trip setpoint "as-left" value is adjusted to within the calibration tolerance band.

TA3.3-324

APPLICABILITY

The 4 kV Safeguards Bus Voltage~~LOP DG Start~~ Instrumentation Functions are required in MODES 1, 2, 3, and 4 because ESF Functions are designed to provide protection in these MODES. Actuation in MODE 5 or 6 is required whenever the required DG must be OPERABLE so that it can perform its function on an UV ~~LOP~~ or degraded power to the ~~vital~~safeguards bus.

(continued)

PA3.3-356 PA3.3-311 X3.3-312

BASES

~~A Note is added to allow bypassing an inoperable channel for up to 4 hours for surveillance testing of other channels. This allowance is made where bypassing the channel does not cause an actuation and where at least two other channels are monitoring that parameter.~~ CL3.3-315

The specified Completion Time and time allowed for bypassing one channel are reasonable considering the Function will operate ~~remains fully OPERABLE~~ on every bus and the low probability of an event occurring during these intervals.

Condition A has been modified by a Note indicating that this Condition is only applicable to Functions a and b.

C<u>B.1</u> R-7

Condition C~~B~~ applies when the Required Action and associated Completion Time of Condition B are not met. The unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours~~more than one loss of voltage or more than one degraded voltage channel on a single bus is inoperable~~.

~~Required Action B.1 requires restoring all but one channel to OPERABLE status. The 1 hour Completion Time should allow ample time to repair most failures and takes into account the low probability of an event requiring an LOP start occurring during this interval.~~ CL3.3-316

CL3.3-317

ACTIONS (continued)

B~~C~~.1

~~Condition C applies to each of the LOP DG start Functions when the Required Action and associated Completion Time for Condition A or B are not met.~~

(continued)

PA3.3-356

CL3.3-331

BASES (continued)

~~B.1~~

CL3.3-344

A Note is added stating that Condition B is only applicable in MODE 1, 2, 3, or 4 when the Containment Inservice Purge System is not isolated.

R-7

C.1 and C.2

CL3.3-359

Condition C applies to all CVI~~Containment Purge and Exhaust Isolation~~ Functions and addresses the train orientation ~~of the SSPS and the master and slave relays~~ for these Functions. ~~It also addresses the failure of multiple radiation monitoring channels, or the inability to restore a single failed channel to OPERABLE status in the time allowed for Required Action A.1.~~ If a train is inoperable, ~~multiple channels are inoperable,~~ or the Required Action and associated Completion Time of Condition A are not met, operation may continue as long as the Required Action to place and maintain containment inservice (low flow) purge and exhaust isolation valves in their closed position is met or the applicable Conditions of LCO 3.9.4, "Containment Penetrations," are met for each valve made inoperable by failure of isolation instrumentation. The Completion Time for these Required Actions is Immediately.

CL3.3-333

CL3.3-344

A Note states that Condition C is only applicable during CORE ALTERATIONS ~~and~~or during movement of irradiated fuel assemblies within containment when the Containment Inservice Purge System is not isolated.

R-7

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that Table 3.3.5~~6~~-1 determines which SRs apply to which CVI ~~Containment Purge and Exhaust Isolation~~ Functions.

(continued)

Difference Category	Difference Number 3.3-	Justification for Differences
	239	Not used.
	240	Not used.
PA	241	This is a minor title change to be consistent with the CTS terminology. This change will make the ITS easier for the operators to use.
CL	242	The CTS Allowable Value from Table 3.5-1 is provided in the ITS Limiting setpoints column.
	243	Not used.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	281	The CTS terminology for these plant components is "Event Monitoring". To facilitate operator use of the ITS, the CTS terminology is retained in the ITS. This change has been made in the title, LCO and throughout the Specification and Bases.
CL	282	The Mode of Applicability for this specification and Bases have been modified to be consistent with CTS. License Amendments 121/114, issued November 9, 1995, changed the CTS statement of applicability to MODES 1 and 2 in accordance with the provisions of the previous TS and the arguments provided in the supporting LAR.
CL	283	New Condition A Note, Condition B, Condition F, Condition G and miscellaneous changes in ITS Conditions C, D, and H are included to implement the CTS requirements for CETS as required by License Amendments 112/105, issued September 7, 1994. Accordingly ITS Table 3.3.3-1 has been revised to not include separate functions for each CET quadrant. In addition, the associated Bases sections have been revised to be consistent with the Specification.

Difference Category	Difference Number 3.3-	Justification for Differences
	284	Not used.
CL	285	The shutdown requirements for ITS Condition I have been modified to require shutdown to MODE 3 to be consistent with CTS as required by License Amendments 121/114, issued November 9, 1995. Bases have been modified to be consistent with the LCO.
	286	Not used.
CL	287	The Surveillance Requirements Note requires SR 3.3.3.1 and 3.3.3.2 to apply to all EM (PAM) functions. However, these SRs are not applicable to the Containment Isolation Valve Position instrumentation. NUREG-1431 which applies to the Westinghouse plants defines a separate SR, the TADOT, for this type of equipment. Thus, the Surveillance Requirements Note has been modified and SR 3.3.3.3 has been included to require performance of a TADOT on the Containment Isolation Valve Position instrumentation. This change is consistent with proposed TSTF-244, Rev 0.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	315	Required Action A.1 and associated Bases is modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change is consistent with CTS Table 3.5-2B, Action 31. Condition A does not apply to LCO 3.3.4 Function c, therefore a Note is included which restricts applicability of this Condition to Functions a and b.
CL	316	This condition is not included since the required action is not appropriate for this condition at PI. The Bases has also been revised to be consistent with the LCO.
CL	317	ITS Required Action B.1 and associated Bases have been modified to be consistent with the PI logic for this instrumentation and CTS requirements. This change implements CTS Table 3.5-2B, Action 33 except that the actions more appropriately enter the Conditions for the load sequencer, now that they are included in the TS, than for the diesel generator.
CL	318	NUREG-1431, Rev. 1, Bases 3.3.5, LCO Section has been revised deleting the following, "During the loss of offsite power the DG powers the motor driven auxiliary feedwater pumps. Failure of these pumps to start would leave only one turbine driven pump, as well as an increased potential for a loss of decay heat removal through the secondary system." This statement has been deleted since it does not reflect PI design.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	323	ITS SR 3.3.4.3 is modified to include the appropriate terminology and Allowable Values for the PI instrumentation. These values are taken from CTS Table 3.5-1 except that the degraded voltage time delays have been modified based on test experience since these were first included in the CTS.
TA	324	This change incorporates TSTF-365. The traveller has been modified to be consistent with the PI Specification title and the PI system design.
	325-330	Not used.
CL	331	The system which performs the functions in this specification is the Containment Ventilation Isolation system; thus this change has been made in the title and throughout the specification and Bases. The system that this containment isolation ventilation isolation system isolates is the Containment Inservice Purge System; thus, containment inservice purge is referenced in Required Action B.1, C.1 and C.2. The Bases is further edited to clarify how the isolation function occurs.

Difference Category	Difference Number 3.3-	Justification for Differences
TA	332	This change incorporates TSTF-161, Rev. 1 in that the Applicable Modes or Other Specified Conditions are specified in the Table. However, for PI the Containment Ventilation Isolation Instrumentation is not required to be operable when the Containment Inservice Purge System is blind flanged. Thus, the Manual Containment Isolation, Safety Injection and Manual Containment Spray Function input to Containment Ventilation Isolation is not required when the Containment Inservice Purge System is blind flanged. Therefore the "all" has been removed from the note referencing to LCO 3.3.2 and the appropriate Applicable Modes or Other Specified Conditions are specified in the Table. Approved TSTF-51, Rev. 2 has NOT been incorporated, since plant evaluations and commitments require the Containment Ventilation Isolation Instrumentation to be operable during CORE ALTERATIONS.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	343	New functions, Table 3.3.5-1 Function 5, Safety Injection, and Function 6, Manual Containment Spray, are included to be consistent with the plant design and CTS requirements.
CL	344	New notes, Note a and Note b, are included in ITS Table 3.3.5-1 and modify the modes of applicability to agree with CTS requirements. In addition, LCO 3.3.5 Conditions B and C have been revised to agree with the Table Notes a and b above. This isolation function is only required to be operable when containment integrity is required or during movement of irradiated fuel assemblies within containment and the Containment Inservice Purge System is not isolated with blind flanges.
	345-349	Not used.
PA	350	NUREG 1431 Bases 3.3.1 Background Section states "...DNBR shall be maintained above the SL value to prevent DNB". The DNBR limits are fuel design acceptance limits used in developing the safety analysis. The SL's are prescribed in the NUREG and ITS Section 2. Satisfying the SL's ensures the fuel design DNBR limit is not exceeded. The SL value statement is deleted to avoid confusion with the terminology. This is considered an editorial change.

Difference Category	Difference Number 3.3-	Justification for Differences
CL	477	The transmitters for high steam flow are located in the containment. However, this input is only used for steam line breaks outside containment. Therefore, the allowable value for high steam flow is not evaluated for adverse environment. The Bases paragraph which discusses consideration of allowable value and adverse environmental conditions is not applicable to Prairie Island and is not included.

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, A3.3-21, 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, A3.3-143, A3.3-144, A3.3-146, A3.3-147, A3.3-148, A3.3-149, A3.3-150, A3.3-151)

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.

M - More restrictive (GENERIC NSHD)
(M3.3-09, M3.3-12, M3.3-15, M3.3-16, M3.3-17, M3.3-26, M3.3-32, M3.3-49, M3.3-52, M3.3-57, M3.3-59, M3.3-60, M3.3-61, M3.3-64, M3.3-73, M3.3-87, M3.3-88, M3.3-91, M3.3-92, M3.3-105, M3.3-106, M3.3-108, M3.3-145)

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.

R - Relocation (GENERIC NSHD)
(R3.3-115, R3.3-152)

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 has 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 it 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.

LR - Less restrictive, Relocated details (GENERIC NSHD)
(LR3.3-03, LR3.3-44, LR3.3-46, LR3.3-96, LR3.3-101, LR3.3-102, LR3.3-112, LR3.3-116, LR3.3-118, LR3.3-127, LR3.3-131)

Some information in the Prairie Island Current Technical Specifications that is descriptive in nature regarding the equipment, system(s), actions or surveillances identified by the specification has been removed from the proposed specification and relocated to the proposed Bases, Updated Safety Analysis Report or licensee controlled procedures. The relocation of this descriptive information to the Bases of the Improved Technical Specifications, Updated Safety Analysis Report or licensee controlled procedures is acceptable because these documents will be controlled by the Improved Technical Specifications required programs, procedures or 10CFR50.59. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner.

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

   The proposed changes relocate detailed, descriptive requirements from the Technical Specifications to the Bases, Updated Safety Analysis Report or licensee controlled procedures. These documents containing the relocated requirements will be maintained under the provisions of 10CFR50.59, a program or procedure based on 10CFR50.59 evaluation of changes, or NRC approved methodologies. Since these documents to which the Technical Specifications requirements have been relocated are evaluated under 10CFR50.59 or its guidance, or in accordance with NRC approved methodologies, no increase in the probability or consequences of an accident previously evaluate will be allowed without prior NRC approval. 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.

   These proposed changes do not necessitate physical alteration of the plant, that is, no new or different type of equipment will be installed, or change parameters governing normal plant operation. The proposed changes will not impose any different requirements and adequate control of the information will be maintained. Thus, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

5.6 Reporting Requirements

5.6.7 Steam Generator Tube Inspection Report (continued)

The report shall summarize:

a) The scope of inspections performed on each steam generator inspected in the affected unit during the current outage;

b) Active degradation mechanisms found;

c) NDE techniques utilized for each degradation mechanism;

d) Location, orientation (if linear) and measured sizes (if available) of service induced indications;

e) Number of tubes plugged or repaired during the inspection outage for each active degradation mechanism;

f) Repair method utilized and the number of tubes repaired by each repair method;

g) Total number and percentage of tubes plugged or repaired to date;

h) The effective plugging percentage for all plugging and tube repairs in each steam generator; and

i) The results of condition monitoring including the results of tube pulls and in-situ testing.

5.6.8 EM Report

When a report is required by Condition C or J of LCO 3.3.3, "Event Monitoring (EM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP) > Safety Injection (SI) Pump Disable Temperature";
LCO 3.4.13, "Low Temperature Overpressure Protection (LTOP) ≤ Safety Injection (SI) Pump Disable Temperature"; and
LCO 3.5.3, "ECCS - Shutdown.

5.6.6

~~b~~2. The analytical methods used to determine the RCS pressure and temperature limits and Cold Overpressure Mitigation System setpoints shall be those previously reviewed and approved by the NRC, specifically those described in the following document:

WCAP-14040-NP-A, Revision 2, "Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves" (~~I~~includes any exemption granted by NRC to ASME Code Case N-514)

5.6.8

When a report is required by Condition or of LCO 3.3.3, "Event Monitoring (EM) Instrumentation." a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

A5.0-38

R-7

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.
A	38	CTS 5.6. CTS 5.6 has been revised adding the requirement, "When a report is required by Condition C or J of LCO 3.3.3, "Event Monitoring (EM) Instrumentation." a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status. These changes are consistent with the requirements of the CTS and are therefore; considered to be Administrative. These changes are consistent with NUREG-1431.

5.6 Reporting Requirements

~~RT_{NDT}; where the predicted increase in RT_{NDT} is based on the mean shift in RT_{NDT} plus the two standard deviation value ($2\sigma_{\Delta}$) specified in Regulatory Guide 1.99, Revision 2. If the measured value exceeds the predicted value (increase RT_{NDT} + $2\sigma_{\Delta}$), the licensee should provide a supplement to the PTLR to demonstrate how the results affect the approved methodology.~~

~~5.6.7 EDG Failure Report~~

~~If an individual emergency diesel generator (EDG) experiences four or more valid failures in the last 25 demands, these failures and any nonvalid failures experienced by that EDG in that time period shall be reported within 30 days. Reports on EDG failures shall include the information recommended in Regulatory Guide 1.9, Revision 3, Regulatory Position C.5, or existing Regulatory Guide 1.108 reporting requirement.~~

CL5.0-81

5.6.8 ~~PAEM~~ Report

When a report is required by Condition BC or GJ of LCO 3.3.~~[3]~~, "~~Post~~Event ~~Accident~~ Monitoring (~~PAEM~~) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

R-7

~~5.6.9 Tendon Surveillance Report~~

~~Any abnormal degradation of the containment structure detected during the tests required by the Pre-stressed Concrete Containment Tendon Surveillance Program shall be reported~~

PA5.0-61

(continued)

Difference Category	Difference Number 5.0-	Justification for Differences
	80	Not used.
CL	81	CTS do not require this report; therefore it is not included in the ITS. This change is also consistent with approved TSTF-37, Revision 2.
	82	Not used.
CL	83	The CTS report requirements are provided in the ITS as required by the Reviewer's Notes in NUREG-1431. The format and content of these requirements are consistent with the latest NRC and industry guidance (dated August 24, 2000) available on September 27, 2000.
PA	84	The titles of ITS 5.7.1 and 5.7.2 have been revised to be consistent with the guidance of Regulatory Guide 8.38. This change is beneficial in that overall it may reduce plant radiation exposure.

Part G

PACKAGE 5.0

ADMINISTRATIVE CONTROLS

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)
(A5.0-00, A5.0-06, A5.0-07, A5.0-11, A5.0-12, A5.0-13, A5.0-14, A5.0-16, A5.0-24, A5.0-26, A5.0-27, A5.0-28, A5.0-31, A5.0-32, A5.0-33, A5.0-34, A5.0-36, A5.0-38)

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.

These proposed changes are editorial in nature. They involve reformatting, renaming, renumbering, or rewording of existing Technical Specifications to provide consistency with NUREG-1431 or conformance with the Writer's Guide, or change of current plant terminology to conform to NUREG-1431. Some administrative changes involve relocation of requirements within the Technical Specifications without affecting their technical content. Clarifications within the new Prairie Island Improved Technical Specifications which do not impose new requirements on plant operation are also considered administrative.