SUMMARY OF CHANGES TO ITS SECTION 3.10

SUMMARY OF CHANGES TO ITS SECTION 3.10 - REVISION D

05/29/01

Source of Change	Summary of Change	Affected Pages
TSTF-296, Rev. 0	Changes are proposed to LCO 3.10.5 and the Bases of 3.10.4 and 3.10.5 to address exceptions that would allow withdrawal of an inoperable control rod. Specifically, for rod removal, a single control rod is withdrawn to the full out position. Prior to uncoupling and control rod removal, the position indication probe may be removed. Consequently, when this occurs, LCO 3.10.5 is required to be entered for final removal of the rod. However, the control rod must be withdrawn once more to actually uncouple the control rod drive mechanism from the control blade. The present wording of LCO 3.10.5 requires a rod withdrawal block to be inserted. If a rod block is inserted for all control rods, removal of the desired rod is impossible. The change is justified by the Bases of the LCO, which states ,"By requiring all other control rods to be inserted and a control rod withdrawal block to be initiated, the function of the inoperable one-rod-out interlock (LCO 3.9.2) is adequately maintained. This Special Operations LCO requirement to suspend all Core Alterations adequately compensates for the inoperable all rods in permissive for the refueling equipment interlocks (LCO 3.9.1)." Allowing for an exception to the rod withdrawal block requirements for the single rod being removed meets the intent of the specification in that the one-rod-out interlock is still adequately maintained since all other rods will have a rod withdrawal block inserted. This is identical to the function of the one-rod-out interlock. Accordingly, the following parts of the submittal are revised: LCO Bases 3.10.4; Bases 3.10.4 JFD TP1; CTS MU page 1 of ITS 3.10.5; ITS 3.10.5 DOCs A2, M3, L1, L2 and L3; ITS 3.10.5 NSHs L1, L2, L3; ITS 3.10.5 LCO; ITS 3.10.5 JFD TP1; ITS Bases 3.10.5 Background, Applicable Safety Analysis, LCO and SRs; and ITS Bases 3.10.5 JFD TP1.	**Section 3.10.4** ITS Bases mark-up, pp B 3.10-17, Insert Page B 3.10-17 Bases JFD TP1 (Bases JFDs p 1 of 1) Retyped ITS p B 3.10-17 **Section 3.10.5** CTS mark-up, p1 of 2 DOC A2 (DOCs p 1 of 6); DOC M3 (DOCs p 2 of 6); DOC L1 (DOCs p 3 of 6); DOC L2 (DOCs p 4 of 6); DOC L3 (DOCs p 5 of 6) NHSCs L1 CHANGE, L2 CHANGE, L3 CHANGE (NHSCs pp 1, 2, 3, 5, 6 of 6) ITS mark-up p Insert Page 3.10-13 JFD TP1 (JFDs p 1 of 1) ITS Bases mark-up, pp B 3.10-21; Insert Page B 3.10-21; B 3.10-22; Insert Page B 3.10-22; B 3.10-23; Insert Page B 3.10-23; B 3.10-24 Bases JFD TP1 (Bases JFDs p 1 of 1) Retyped ITS pp 3.10-13, B 3.10-21, B 3.10-22, B 3.10-23, B 3.10-24, B 3.10-25

SUMMARY OF CHANGES TO ITS SECTION 3.10 - REVISION D

05/29/01

Source of Change	Summary of Change	Affected Pages
RAI 3.10-02	The fourth paragraph under the Background Section of the Bases for ITS 3.10.1 was previously deleted. The rationale for this deletion, as previously presented in JFD X2, was that the paragraph was considered an unnecessary level of detail for these Bases. The Staff requested that the Licensee explain why the level of detail was excessive. In addition, the NRC requested that a TSTF change be developed and submitted to correct the ISTS Bases. JAF responded by revising JFD X2 and providing the rationale why a TSTF was not required for this type of change to the Bases.	**Section 3.10.1** JFD X2 (JFDs p 2 of 2)
RAI 3.10-04	Previously, ITS 3.10.3 for single control rod withdrawal in Mode 3 added the requirement to meet LCO 3.3.8.2 (RPS Electric Power Monitoring) in Mode 5 when in this Special Operation Specification. The NRC indicated that the absence of the requirement to meet LCO 3.3.8.2 when entering ITS 3.10.3 appears to be an oversight in the ISTS. Accordingly, the Staff requested that a TSTF be developed and submitted to the NRC to correct the ISTS. JAF responded by stating that this issue was addressed by the BWROG, which resulted in TSTF-320. However, the details of the BWROG approved TSTF-320 did not include the change shown in the JAF submittal. Therefore, this previous change to ITS 3.10.3 will be removed, restoring the wording to match the ISTS. Similarly, consistent with the BWROG's resolution of this issue, the previous change by JAF to ITS 3.3.8.2 to remove Mode 3 from the Applicability will be retracted and Mode 3 will be added similar to the presentation of Mode 4 in the Applicability of ITS 3.3.8.2.	**Section 3.10.3** ITS mark-up p 3.10-6 JFD X1 (JFDs p 1 of 1) ITS Bases mark-up, p Insert Page B 3.10-13 Bases JFD X2 (Bases JFDs p 1 of 1) Retyped ITS pp 3.10-6, B 3.10-13 **Section 3.10.4** ITS mark-up p 3.10-9 JFD X1 (JFDs p 1 of 1)

SUMMARY OF CHANGES TO ITS SECTION 3.10 - REVISION D

05/29/01

Source of Change	Summary of Change	Affected Pages
	Specifically, for ITS 3.3.8.2 the Applicability will be in Mode 3 with any control rod withdrawn from a core cell containing one or more fuel assemblies. Accordingly, the resolution of this issue results in changes to LCO 3.10.3.d, ITS JFD X1, Bases Applicability and Bases JFD X2. Also, JAF had previously made similar changes to ITS 3.10.4 for single control rod withdrawal in Mode 4. Therefore, the Staff also had similar comments for ITS 3.10.4. Accordingly, consistent with the resolution for ITS 3.10.3, similar changes are also made to LCO 3.10.4.c, JFD X1, Bases Applicability and Bases JFD X2.	ITS Bases mark-up, p B 3.10-18 Bases JFD X2 (Bases JFDs p 1 of 1) Retyped ITS pp 3.10-9, B 3.10-18
RAI 3.10-05	Previously, Required Action A.1 of ITS 3.10.5 was revised to delete the word "mechanism" since the control rod is also permitted to removed. The NRC requested that JAF develop a TSTF. JAF previously responded that TSTF-296 addresses issues that include clarification of the applicability of LCO 3.10.5 to removal of the control rod and as well as removal of the CRD mechanism. In addition, JAF also said that a revision to TSTF-296 would be submitted to the Staff. After further examining this previous response, JAF has decided to revise its approach to this issue and issue a revised response to the RAI with this submittal package. Consistent with this revised RAI response, ITS 3.10.5 JFD X1 is revised and JFD PA2 has been developed.	**Section 3.10.5** ITS mark-up p Insert Page 3.10 13 JFD PA2 (JFDs p 1 of 1), JFD X1 (JFDs p 1 of 1) Retyped ITS pp 3.10-13
License Amendment 267	Incorporates the provisions of Amendment 267, which added CTS Section 3.12.A, Special Operations, Inservice Leak and Hydrostatic Testing Operation. The changes resulting from this amendment only affect the CTS markup, DOCs, and NHSCs. The final typed ITS is unaffected since the amendment only incorporates provisions previously included in the ITS submittal.	**Section 3.10.1** CTS mark-up -- all pages DOCs -- all NHSCs -- all **Section 3.10.8** CTS mark-up p 2 of 12
Typographical Correction	Minor typographical correction to JFD DB1. Meaning of JFD is unaffected.	**Section 3.10.1** JFD DB1 (JFDs p 1 of 2)

ITS CONVERSION PACKAGE

SECTION 3.10 - SPECIAL OPERATIONS

JAFNPP
IMPROVED TECHNICAL SPECIFICATION (ITS)

CONVERSION PACKAGE

Section 3.10 - SPECIAL OPERATIONS

Table of Contents

The markup package for each Specification contains the following:

Markup of the current Technical Specifications (CTS);
Discussion of changes (DOCs) to the CTS;
No significant hazards consideration (NSHC) for each less restrictive change (Lx) to the CTS;
Markup of the corresponding NUREG-1433 Specification;
Justification of differences (JFDs) from the NUREG;
Markup of NUREG-1433 Bases;
Justification for differences (JFDs) from NUREG-1433 Bases; and
Retyped proposed Improved Technical Specifications (ITS) and Bases.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

DISCUSSION OF CHANGES (DOCs) TO THE CTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

MARKUP OF NUREG-1433, REVISION 1, SPECIFICATION

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1

MARKUP OF NUREG-1433, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1, BASES

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Specification 3.10.1

A1

JAFNPP

3.12 LIMITING CONDITIONS FOR OPERATION	4.12 SURVEILLANCE REQUIREMENTS
3.12 SPECIAL OPERATIONS	4.12 SPECIAL OPERATIONS
Applicability:	Applicability:
Applies to the status of systems during special operations.	Applies to periodic testing of systems during special operations.
Objective:	Objective:
To allow performance of special operations.	To verify operability of required systems during special operations.
Specification:	Specification:
A. Inservice Leak and Hydrostatic Testing Operation	A. Inservice Leak and Hydrostatic Testing Operation
The reactor may be considered to be in COLD SHUTDOWN with reactor coolant system (RCS) temperature between 212°F and 200°F the reactor vessel not vented, and LCO requirements normally applicable when RCS temperature is greater than 212°F are not required, to allow performance of inservice leak or hydrostatic testing provided the following LCOs are met:	Perform the applicable surveillance requirements for the required LCOs.
1. LCO 3.5.F, "ECCS-Cold Condition," a minimum of two low pressure subsystems shall be operable;	
2. LCO 3.6.4.3 ~~3.7.B~~, "Standby Gas Treatment System";	
3. Secondary Containment isolation and Standby Gas Treatment initiation instrumentation:	
a. LCO 3.2.A, "Primary Containment Isolation Functions", Table 3.2-1, Trip Function "Reactor Low Water Level (Notes 4 and 7)";	

[3.10.1] A. [Applicability] A4 [LCO 3.10.1] LA1 [3.10.1] A4 A. [SR 3.10.1.1] [LCO 3.10.1.d] [LCO 3.10.1.a] [Function 1] A1

add LCO 3.4.8 requirements suspension A2 A3

A1 LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, 4

Specification 3.10.1

A1

3.12 LIMITING CONDITIONS FOR OPERATION

3.12 SPECIAL OPERATIONS (cont.)

LCO 3.10.1.a Functions 3,4

b. Radiological Effluent TS LCO 3.8, "Standby Gas Treatment System", Radiological Effluent TS Table 3.10-1, Trip Functions "Refuel Area Exhaust Monitor" and "Reactor Building Area Exhaust Monitors".

A1

LCO 3.3.6.2 "Secondary Containment Isolation Instrumentation," Function 3,4

LCO 3.10.1.b and LCO 3.10.1.c

4. LCO 3.7.C, "Secondary Containment"; (including the maintenance of Secondary Containment Integrity as defined by Definition 1.0.S); and

A1

LCO 3.6.4.1 "Secondary Containment"

LCO 3.6.4.2 "Secondary Containment Isolation Values"

5. LCO 3.9, "Auxiliary Electrical Systems," the necessary systems shall be operable to support equipment required to be operable.

A2

add proposed ACTION NOTE

RA A.2.1 A.2.2

6. With the above requirements not met, immediately suspend activities that could increase reactor coolant temperature or pressure and reduce reactor coolant temperature to less than 212°F within 24 hours.

add RA A.1

L1

≤

L2

Page 2 of 2

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATIONS

ADMINISTRATIVE CHANGES

A1 In the conversion of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Current Technical Specification (CTS) to the proposed plant specific Improved Technical Specifications (ITS) certain wording preferences or conventions are adopted which do not result in technical changes. Editorial changes, reformatting, and revised numbering are adopted to make the ITS consistent with the conventions in NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," Revision 1 (i.e., Improved Standard Technical Specifications (ISTS)).

A2 The cross references in CTS 3.12.A.1 and CTS 3.12.A.5 to LCO 3.5.F, "ECCS-Cold Shutdown", and LCO 3.9, "Auxiliary Electrical Systems", respectively have been deleted. The requirements of these Specifications will be normally required in MODE 4 in the associated applicable Specifications of ITS Sections 3.5 and 3.8, therefore the cross references to these Specifications is not necessary and this change is considered administrative. Any changes of the requirements for these Specifications in MODE 4 will be discussed in the associated Discussion of Changes for proposed ITS 3.5.2, 3.8.2, 3.8.3, 3.8.5, 3.8.6, and 3.8.9. This change is consistent with NUREG-1433, Revision 1.

A3 A clarification was added to CTS 3.12.A (as indicated in ITS 3.10.1) to permit the suspension of the requirements of ITS 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling-Cold Shutdown." ITS 3.4.8, requires two RHR shutdown cooling subsystems to be OPERABLE. This requirement may not be met during the performance of the inservice leak and hydrostatic testing operations. The RHR shutdown cooling suction isolation valves receive a close signal on reactor high pressure. During the hydrostatic testing operations this pressure will be exceeded and therefore the system can not be aligned in the mode of operation. This interlock function is provided for equipment protection to prevent an intersystem LOCA scenario. Therefore, the RHR Shutdown Cooling Systems will be in effect inoperable. Therefore, the requirements of LCO 3.4.8 will not be met and this allowance is necessary. This change is considered administrative since there are no current requirements for the RHR Shutdown Cooling modes of operation in the Technical Specifications. In addition, a clarification has been added in CTS 3.12.A (ITS 3.10.1) to change the temperature specified in Table 1.1-1 for MODE 4 to "NA". This clarification has been made to clearly define the allowances of the proposed Specification. Since the allowance is already in CTS 3.12.A (reactor may be considered to be in COLD SHUTDOWN...) this change is considered administrative and consistent with NUREG-1433, Revision 1.

LG # 267 AMEND A

DISCUSSION OF CHANGES
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATIONS

ADMINISTRATIVE CHANGES

A4 CTS 3.12.A allows the reactor to be considered to be in COLD SHUTDOWN with reactor coolant temperature between 212°F and 300°F. The Applicability of ITS 3.10.1 is MODE 4 with average reactor coolant temperature > 212°F. The limit of 300°F has been relocated to the Technical Requirements Manual (TRM) in accordance with LA1. Since the current Applicability is between 212°F and 300°F the Applicability is not at 212°F, and therefore the presentation of the ITS Applicability is consistent with the current requirements except for the relocation of the upper limit to the TRM. However, this change is discussed in LA1. This change is therefore considered administrative and is consistent with NUREG-1433, Revision 1.

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The temperature allowance of up to 300°F to perform the inservice leak or hydrostatic test is proposed to be relocated to the Technical Requirements Manual (TRM). Inservice leak and hydrostatic tests are very controlled evolutions involving strict procedural compliance. As a result, the maximum temperature limitation is not necessary to be included in the Technical Specifications to ensure this maximum temperature limitation is not exceeded. The minimum temperatures (at the required pressures) allowed for these tests are determined from the RPV pressure and temperature (P/T) limits specified in ITS 3.4.9, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits." Figure 3.4.9-1 indicates the minimum temperature required at the associated pressures. Operations will ensure these limitations are not exceeded. A minimum temperature limit of approximately 200°F is currently required at a reactor pressure of 1040 psig, therefore adequate margin is available without exceeding the current 300°F limit. In addition, the 300°F limit was conservatively chosen based on an analysis which postulated a recirculation line break and examined the capability of the secondary containment to remain intact with the primary containment breached during the a hydrostatic test with the reactor coolant temperature at 350°F. The results of this analysis indicated that the secondary containment would remain intact. Therefore, relocating the current temperature limit to the TRM is acceptable and is not required to remain in the ITS to ensure adequate protection of public health and safety. At ITS implementation, the TRM will be included in the UFSAR by reference. Changes to the relocated

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TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 (continued)

requirements in the TRM will be controlled by the provisions of 10 CFR 50.59.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 3.12.A.6 requires the inservice leak and hydrostatic testing operations to be suspended immediately when the requirements of CTS 3.12.A are not met. An alternative action (ITS 3.10.1 Required Action A.1) to CTS 3.12.A.6 has been provided to allow entry into the applicable Conditions of the affected LCO if any requirement of CTS 3.12.A (ITS 3.10.1) is not met. Required Action A.1 Note has been added to clarify that if an affected Specifications ACTIONS state to be in MODE 4, this includes reducing average coolant temperature to $\leq$ 212°F. This is consistent with the second part of the CTS 3.12.A.6 ACTION (see L2). Along with this change a NOTE has been added to the ACTIONS Table which allows separate Condition entry for each requirement of the LCO. In conjunction with proposed Specification 1.3 - "Completion Times," the Note ("Separate condition entry ...") and the Conditions of ITS 3.10.1 provide more explicit direction for the use of the ITS. This change in presentation method provides instructions, in a manner more explicit for proper application of the Actions for Technical Specification compliance, consistent with the format and requirements of NUREG-1433, Revision 1.

Since this change allows the test to continue if the Conditions of the LCO are not met this change is considered less restrictive but an acceptable alternative since the ACTIONS of the proposed LCOs provide adequate compensatory actions. If the secondary containment is inoperable, ITS 3.6.4.1 allows 4 hours to restore secondary containment to Operable status. ITS 3.6.4.2 Required Action A.1 will allow 8 hours to isolate an inoperable secondary containment penetration flow path. In addition, for those penetrations with two inoperable SCIVs an allowance of 4 hours is provided to isolate the penetration. With one SGT subsystem inoperable, ITS 3.6.4.3 Required Action A.1 will allow 7 days to restore the inoperable SGT subsystem to Operable status. If any of the above Required Actions and associated Completion Times cannot be met the plant must be in MODE 3 in 12 hours and MODE 4 in 36 hours. If both SGT subsystems are inoperable entry into ITS LCO 3.0.3 is required. ITS 3.3.6.2 will allow operation to continue with inoperable equipment for a short period of time without placing a channel in trip as long as secondary containment isolation capability is maintained. If isolation

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TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 (continued)

capability is not maintained the associated secondary containment function must be declared inoperable or isolated within 2 hours. These Required Actions and Completion Times were established based on operations in MODES 1, 2 and 3. The Completion Times take into account the low probability of a DBA occurring during this short time and the time needed to restore the secondary containment, SCIVs, or SGT subsystems to Operable status. During a refueling outage, the reactor coolant pressure boundary is not required to be intact. The inservice hydrostatic testing and system leakage pressure tests required by Section XI of the ASME code are performed to ensure the integrity of the reactor coolant system prior to the reactor going critical after a refueling outage. This testing is only performed after the reactor coolant integrity is known to be sound by ensuring all work on the system is cleared and testing approved by the plant staff in conformance with strict administrative procedures. This test is a verification of its integrity. Therefore, ITS 3.10.1 Required Action A.1 and the corresponding Required Actions and Completion Times of the affected LCOs are considered to be acceptable from a safety standpoint since performing this test is not considered to cause an event to occur. Therefore, the risk of allowing this option is also considered small. The hydrostatic or leak tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, thus the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above operating limits is minimized. In addition, small steam leaks would be detected by inspections before significant inventory loss has occurred.

L2 CTS 3.12.A.6 requires the plant to immediately reduce coolant temperature to less than 212°F whenever any requirement of CTS 3.12.A is not met. ITS 3.10.1 Required Action A.2.2 will only require the reduction in reactor coolant temperature to ≤ 212°F. As specified in CTS 3.12.A, the Applicability of this Specification is when reactor coolant temperature is > 212°F (see A4). Therefore, reducing the coolant temperature as specified in ITS 3.10.1 Required Action A.2.2 places the plant outside the Applicability of this Specification and in a Condition where the additional LCOs (Secondary Containment Isolation Instrumentation Functions, Secondary Containment, Secondary Containment Isolation Valves and Standby Gas Treatment System) are no longer required to be met (MODE 4). Since operation with these LCOs not met is currently allowed by the Technical Specifications at ≤ 212°F, this change is considered to be acceptable from a safety standpoint.

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DISCUSSION OF CHANGES
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATIONS

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

The licensee has evaluated the proposed Technical Specification change identified as "Technical Changes - Less Restrictive" and has determined that it does not involve a significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92. The bases for the determination that the proposed change does not involve a significant hazards consideration are discussed below.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change allows a short out-of-service time for various secondary containment LCOs not met instead of requiring an immediate suspension of activities that could increase the average reactor coolant temperature or pressure and the subsequent reduction in the average reactor coolant temperature to ≤ 212°F. The secondary containment equipment (isolation instrumentation, SCIVs, SGT subsystem) are used to mitigate the consequences of an accident, but the inoperability of secondary containment equipment is not considered as the initiator of any previously analyzed accident. As such, the inoperability of the secondary containment equipment will not increase the probability of any accident previously evaluated. Since this change allows the test to continue if the Conditions of the LCO are not met this change is considered less restrictive but an acceptable alternative since the ACTIONS of the proposed LCOs provide adequate compensatory actions. If the secondary containment is inoperable, ITS 3.6.4.1 allows 4 hours to restore secondary containment to Operable status. ITS 3.6.4.2 Required Action A.1 will allow 8 hours to isolate an inoperable penetration flow path. In addition, for those penetrations with two inoperable SCIVs an allowance of 4 hours is provided to isolate the penetration. With one SGT subsystem inoperable, ITS 3.6.4.3 Required Action A.1 will allow 7 days to restore the inoperable SGT subsystem to Operable status. If any of the above Required Actions and associated Completion Times cannot be met the plant must be in MODE 3 in 12 hours and MODE 4 in 36 hours. If both SGT subsystems are inoperable entry into ITS LCO 3.0.3 is required. ITS 3.3.6.2 will allow operation to continue with inoperable equipment for a short period of time without placing a channel in trip as long as secondary containment isolation capability is maintained. If isolation capability is not maintained the associated secondary containment function must be declared inoperable or isolated within 2 hours. These Required Actions and Completion Times were established based on operations in MODES 1, 2 and 3. The Completion Times take into account the low probability of a DBA occurring during this short time and the time needed to restore the secondary containment, SCIVs, or SGT

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NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

1. (continued)

subsystems to Operable status. During a refueling outage, the reactor coolant pressure boundary is not required to be intact. The inservice hydrostatic testing and system leakage pressure tests required by Section XI of the ASME code are performed to ensure the integrity of the reactor coolant system prior to the reactor going critical after a refueling outage. This testing is only performed after the reactor coolant integrity is known to be sound by ensuring all work on the system is cleared and testing approved by the plant staff in conformance with strict administrative procedures. This test is a verification of its integrity. Therefore, ITS 3.10.1 Required Action A.1 and the corresponding Required Actions and Completion Times of the affected LCOs are considered to be acceptable from a safety standpoint since performing this test is not considered to cause an event to occur. Therefore, the risk of allowing this option is also considered small. The hydrostatic or leak tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, thus the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above operating limits is minimized. In addition, small steam leaks would be detected by inspections before significant inventory loss has occurred. As a result, the change does not involve a significant increase in the consequences of any accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change does not introduce a new mode of plant operation and does not involve physical modification to the plant. Therefore, it does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

The proposed change allows a short out-of-service time for various secondary containment LCOs not met instead of requiring an immediate suspension of activities that could increase the average reactor coolant temperature or pressure and the subsequent reduction in the average reactor coolant temperature to $\leq$ 212°F. Since this change allows the test to continue if the Conditions of the LCO are not met this change is considered less restrictive but an acceptable alternative since the

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TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

3. (continued)

ACTIONS of the proposed LCOs provide adequate compensatory actions. If the secondary containment is inoperable, ITS 3.6.4.1 allows 4 hours to restore secondary containment to Operable status. ITS 3.6.4.2 Required Action A.1 will allow 8 hours to isolate an inoperable penetration flow path. In addition, for those penetrations with two inoperable SCIVs an allowance of 4 hours is provided to isolate the penetration. With one SGT subsystem inoperable, ITS 3.6.4.3 Required Action A.1 will allow 7 days to restore the inoperable SGT subsystem to Operable status. If any of the above Required Actions and associated Completion Times cannot be met the plant must be in MODE 3 in 12 hours and MODE 4 in 36 hours. If both SGT subsystems are inoperable entry into ITS LCO 3.0.3 is required. ITS 3.3.6.2 will allow operation to continue with inoperable equipment for a short period of time without placing a channel in trip as long as secondary containment isolation capability is maintained. If isolation capability is not maintained the associated secondary containment function must be declared inoperable or isolated within 2 hours. These Required Actions and Completion Times were established based on operations in MODES 1, 2 and 3. The Completion Times take into account the low probability of a DBA occurring during this short time and the time needed to restore the secondary containment, SCIVs, or SGT subsystems to Operable status. During a refueling outage, the reactor coolant pressure boundary is not required to be intact. The inservice hydrostatic testing and system leakage pressure tests required by Section XI of the ASME code are performed to ensure the integrity of the reactor coolant system prior to the reactor going critical after a refueling outage. This testing is only performed after the reactor coolant integrity is known to be sound by ensuring all work on the system is cleared and testing approved by the plant staff in conformance with strict administrative procedures. This test is a verification of its integrity. Therefore, ITS 3.10.1 Required Action A.1 and the corresponding Required Actions and Completion Times of the affected LCOs are considered to be acceptable from a safety standpoint since performing this test is not considered to cause an event to occur. Therefore, the risk of allowing this option is also considered small. In addition, the hydrostatic or leak tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, thus the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above operating limits is minimized. In addition, small steam leaks would be detected by inspections before significant

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NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

3. (continued)

inventory loss has occurred. Therefore, the change does not involve a significant reduction in a margin of safety.

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NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

The licensee has evaluated the proposed Technical Specification change identified as "Technical Changes - Less Restrictive" and has determined that it does not involve a significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92. The bases for the determination that the proposed change does not involve a significant hazards consideration are discussed below.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change reduces the default action from < 212°F to ≤ 212°F when any requirement of the Inservice Leak and Hydrostatic Testing Specification is not met. The temperature of the reactor coolant (< 212°F or ≤ 212°F) does not cause a design bases accident to occur. Therefore, this change does not significantly increase the probability of an accident previously evaluated. The Applicability of this LCO and the other LCOs are whenever reactor coolant temperature is > 212°F (MODE 3). Outside (≤ 212°F) of this Condition the requirements of the other LCOs (Secondary Containment Isolation Functions, Secondary Containment, Secondary Containment Isolation Valves and Standby Gas Treatment System) are not required to be met. Since the proposed Action places the plant outside of the Applicability of the other Specifications, this additional requirement to reduce temperature an additional degree is not necessary. In addition, the consequences of an event at the proposed default condition (≤ 212°F) will be bounded by an event occurring at the proposed default condition while not operating in accordance with CTS 3.12.A. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed change does not involve any physical changes to plant structures, systems, or components (no new or different type of equipment will be installed and no equipment will be removed). The change will not alter assumptions made in the safety analyses. Therefore, the change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

AMEND # 267

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

3. Does this change involve a significant reduction in a margin of safety?

The proposed change reduces the default action from < 212°F to ≤ 212°F when any requirement of the Inservice Leak and Hydrostatic Testing Special Operations LCO is not met. The Applicability of this Inservice Leak and Hydrostatic Testing Special Operations LCO and the other LCOs are whenever reactor coolant temperature is > 212°F (MODE 3). Outside (≤ 212°F) of this Condition the requirements of the other LCOs (Secondary Containment Isolation Functions, Secondary Containment, Secondary Containment Isolation Valves and Standby Gas Treatment System) are not required to be met. Since the proposed Action places the plant outside of the Applicability of the other Specifications, this additional requirement to reduce temperature an additional degree is not necessary. In addition, the consequences of an event at the proposed default condition (≤ 212°F) will be bounded by an event occurring at the proposed default condition while not operating in accordance with CTS 3.12.A. Therefore, margin of safety is not significantly reduced by the proposed change.

AMEND # 267

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

MARKUP OF NUREG-1433, REVISION 1 SPECIFICATION

3.10 SPECIAL OPERATIONS

3.10.1 Inservice Leak and Hydrostatic Testing Operation

LCO 3.10.1 The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.9, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown," may be suspended, to allow performance of an inservice leak or hydrostatic test provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, 4 and 6 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 200 °F. 212

ACTIONS

NOTE
Separate Condition entry is allowed for each requirement of the LCO.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the above requirements not met.	A.1 NOTE Required Actions to be in MODE 4 include reducing average reactor coolant temperature to ≤ 212°F.	CLBI
	Enter the applicable Condition of the affected LCO.	Immediately
	OR	
	A.2.1 Suspend activities that could increase the average reactor coolant temperature or pressure.	Immediately
	AND	
	A.2.2 Reduce average reactor coolant temperature to ≤ 212°F.	24 hours CLBI

AMEND # 267

[LI]

[LI]

[3.12.A.6]

[3.12.A.6]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.10.1.1	Perform the applicable SRs for the required MODE 3 LCOs.	According to the applicable SRs

AMEND #267 [4.12.A.]

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The average reactor coolant temperature has been revised to reflect the transition temperature of 212°F used in ITS Table 1.1-1 to define MODES 3 and 4 which is consistent with the current requirements in CTS 3.12.A and in the CTS definition of COLD SHUTDOWN.

AMEND # 267

PLANT-SPECIFIC WORDING PREFERENCE OR MINOR EDITORIAL IMPROVEMENT (PA)

PA1 The proper LCO number has been used.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 The brackets have been removed and the appropriate Functions of ITS Table 3.3.6.2-1 have been included consistent with the design and current licensing basis.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

None

DIFFERENCE BASED ON A SUBMITTED, BUT PENDING TRAVELER (TP)

None

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.10 SPECIAL OPERATIONS

B 3.10.1 Inservice Leak and Hydrostatic Testing Operation

BASES

BACKGROUND

The purpose of this Special Operations LCO is to allow certain reactor coolant pressure tests to be performed in MODE 4 when the metallurgical characteristics of the reactor pressure vessel (RPV) require the pressure testing at temperatures > 200°F (normally corresponding to MODE 3).

Inservice hydrostatic testing and system leakage pressure tests required by Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Ref. 1) are performed prior to the reactor going critical after a refueling outage. Recirculation pump operation and a water solid RPV (except for an air bubble for pressure control) are used to achieve the necessary temperatures and pressures required for these tests. The minimum temperatures (at the required pressures) allowed for these tests are determined from the RPV pressure and temperature (P/T) limits required by LCO 3.4.10, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits." These limits are conservatively based on the fracture toughness of the reactor vessel, taking into account anticipated vessel neutron fluence.

With increased reactor vessel fluence over time, the minimum allowable vessel temperature increases at a given pressure. Periodic updates to the RPV P/T limit curves are performed as necessary, based upon the results of analyses of irradiated surveillance specimens removed from the vessel. Hydrostatic and leak testing will eventually be required with minimum reactor coolant temperatures > 200°F.

The hydrostatic test requires increasing pressure to [ ]% of design pressure (1250 psig) or [ ] psig, and because of the expected increase in reactor vessel fluence, the minimum allowable vessel temperature according to LCO 3.4.10 is increased to [ ]°F. This increase to [ ]% of design pressure does not exceed the Safety Limit of 1375 psig.

(continued)

BASES (continued)

APPLICABLE SAFETY ANALYSES

Allowing the reactor to be considered in MODE 4 during hydrostatic or leak testing, when the reactor coolant temperature is >200°F, effectively provides an exception to MODE 3 requirements, including OPERABILITY of primary containment and the full complement of redundant Emergency Core Cooling Systems. Since the hydrostatic or leak tests are performed nearly water solid, at low decay heat values, and near MODE 4 conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity above the LCO 3.4.6, "RCS Specific Activity," limits are minimized. In addition, the secondary containment will be OPERABLE, in accordance with this Special Operations LCO, and will be capable of handling any airborne radioactivity or steam leaks that could occur during the performance of hydrostatic or leak testing. The required pressure testing conditions provide adequate assurance that the consequences of a steam leak will be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment described in Reference 4. Therefore, these requirements will conservatively limit radiation releases to the environment.

In the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low pressure core cooling systems to operate. The capability of the low pressure coolant injection and core spray subsystems, as required in MODE 4 by LCO 3.5.2, "ECCS—Shutdown," would be more than adequate to keep the core flooded under this low decay heat load condition. Small system leaks would be detected by leakage inspections before significant inventory loss occurred.

For the purposes of this test, the protection provided by normally required MODE 4 applicable LCOs, in addition to the secondary containment requirements required to be met by this Special Operations LCO, will ensure acceptable consequences during normal hydrostatic test conditions and during postulated accident conditions.

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

the NRC Policy Statement apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. Operation at reactor coolant temperatures > 200°F can be in accordance with Table 1.1-1 for MODE 3 operation without meeting this Special Operations LCO or its ACTIONS. This option may be required due to P/T limits, however, which require testing at temperatures > 200°F, while the ASME inservice test itself requires the safety/relief valves to be gagged, preventing their OPERABILITY.

If it is desired to perform these tests while complying with this Special Operations LCO, then the MODE 4 applicable LCOs and specified MODE 3 LCOs must be met. This Special Operations LCO allows changing Table 1.1-1 temperature limits for MODE 4 to "NA" and suspending the requirements of LCO 3.4.9, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown." The additional requirements for secondary containment LCOs to be met will provide sufficient protection for operations at reactor coolant temperatures > 200°F for the purpose of performing either an inservice leak or hydrostatic test.

This LCO allows primary containment to be open for frequent unobstructed access to perform inspections, and for outage activities on various systems to continue consistent with the MODE 4 applicable requirements that are in effect immediately prior to and immediately after this operation.

APPLICABILITY

The MODE 4 requirements may only be modified for the performance of inservice leak or hydrostatic tests so that these operations can be considered as in MODE 4, even though the reactor coolant temperature is > 200°F. The additional requirement for secondary containment OPERABILITY according to the imposed MODE 3 requirements provides conservatism in the response of the unit to any event that may occur. Operations in all other MODES are unaffected by this LCO.

(continued)

BASES (continued)

ACTIONS

A Note has been provided to modify the ACTIONS related to inservice leak and hydrostatic testing operation. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for each requirement of the LCO not met provide appropriate compensatory measures for separate requirements that are not met. As such, a Note has been provided that allows separate Condition entry for each requirement of the LCO.

A.1

If an LCO specified in LCO 3.10.1 is not met, the ACTIONS applicable to the stated requirements are entered immediately and complied with. Required Action A.1 has been modified by a Note that clarifies the intent of another LCO's Required Action to be in MODE 4 includes reducing the average reactor coolant temperature to ≤ 200°F. (212) (CLB)

A.2.1 and A.2.2

Required Action A.2.1 and Required Action A.2.2 are alternate Required Actions that can be taken instead of Required Action A.1 to restore compliance with the normal MODE 4 requirements, and thereby exit this Special Operation LCO's Applicability. Activities that could further increase reactor coolant temperature or pressure are suspended immediately, in accordance with Required Action A.2.1, and the reactor coolant temperature is reduced to establish normal MODE 4 requirements. The allowed Completion Time of 24 hours for Required Action A.2.2 is based on engineering judgment and provides sufficient time to reduce the average reactor coolant temperature from the highest expected value to ≤ 200°F with normal cooldown procedures. The Completion Time is also consistent with the time provided in LCO 3.0.3 to reach MODE 4 from MODE 3. (212) (CLB)

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.10.1.1

The LCOs made applicable are required to have their Surveillances met to establish that this LCO is being met. A discussion of the applicable SRs is provided in their respective Bases.

REFERENCES

1. American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI.

FSAR, Section [15.1.40]. 14.6.1.5

5. 10CFR 50.36 (c)(2)(ii)

2. JAF-CALC-MULT-02238, Revision 1, JAF-HELB Analysis During Hydrostatic Test, May 27, 1999

3. JAF-CALC-RBC-03400, Revision 0, Evaluation of Reactor Building Ducts and Doors for Recirc. Break During Hydro, August 9, 1999

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The average reactor coolant temperature has been revised to reflect the transition temperature of 212°F used in ITS Table 1.1-1 to define MODES 3 and 4 which is consistent with the CTS definition of COLD SHUTDOWN.

PLANT-SPECIFIC WORDING PREFERENCE OR MINOR EDITORIAL IMPROVEMENT (PA)

PA1 Editorial changes have been made for enhanced clarity.

PA2 The proper LCO number has been used.

PA3 Typographical/grammatical error corrected.

PA4 Changes have been made to reflect the plant specific nomenclature.

edit

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 Plant specific analyses were performed which show that even if a recirculation line break occurred during the performance of this test, the consequences would be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment. These analyses have been included as References 2 and 3 and subsequent references have been renumbered, where applicable.

DB2 The brackets have been removed and the proper plant specific reference has been provided.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

None

DIFFERENCE BASED ON A SUBMITTED, BUT PENDING TRAVELER (TP)

None

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.10.1 - INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

X1 The hydrostatic test is already required to be performed at reactor coolant temperatures greater than 200°F; therefore, this sentence has been deleted.

RAI 3.10-2

X2 Bases discussion is made more generic to accommodate future changes to required test conditions. The rationale for the temperature shifts required for performing hydrostatic testing is outlined in the 3rd paragraph of the 3.10.1 Bases Background Section. The paragraph deleted was providing specific hydrostatic test conditions which are required by Specification 3.4.9. As such, this detail is unnecessary here.

Since the change to the Bases reflects a plant-specific request, and does not reflect correction of an error, it would not meet the threshold for generic (TSTF) change.

In addition, the last sentence is being deleted since the LCO is not exempting the Safety Limit from being met during hydrostatic test.

X3 The ASME inservice test does not require S/RVs to be gagged. Therefore, a valid reason for this LCO has been provided.

X4 NUREG-1433, Revision 1, Bases reference to "the NRC Policy Statement" has been replaced with 10 CFR 50.36(c)(2)(ii), in accordance with 60 FR 36953 effective August 18, 1995.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.1

Inservice Leak and Hydrostatic Testing Operation

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.10 SPECIAL OPERATIONS

3.10.1 Inservice Leak and Hydrostatic Testing Operation

LCO 3.10.1 The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System–Cold Shutdown," may be suspended, to allow performance of an inservice leak or hydrostatic test provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, and 4 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 212°F.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each requirement of the LCO.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more of the above requirements not met.	A.1	--------NOTE-------- Required Actions to be in MODE 4 include reducing average reactor coolant temperature to ≤ 212°F. --- Enter the applicable Condition of the affected LCO.	Immediately
	OR		
	A.2.1	Suspend activities that could increase the average reactor coolant temperature or pressure.	Immediately
	AND		
	A.2.2	Reduce average reactor coolant temperature to ≤ 212°F.	24 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.10.1.1	Perform the applicable SRs for the required MODE 3 LCOs.	According to the applicable SRs

B 3.10 SPECIAL OPERATIONS

B 3.10.1 Inservice Leak and Hydrostatic Testing Operation

BASES

BACKGROUND

The purpose of this Special Operations LCO is to allow certain reactor coolant pressure tests to be performed in MODE 4 when the metallurgical characteristics of the reactor pressure vessel (RPV) require the pressure testing at temperatures > 212°F (normally corresponding to MODE 3).

Inservice hydrostatic testing and system leakage pressure tests required by Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Ref. 1) are performed prior to the reactor going critical after a refueling outage. Recirculation pump operation, decay heat and a water solid RPV (except for an air bubble for pressure control) are used to achieve the necessary temperatures and pressures required for these tests. The minimum temperatures (at the required pressures) allowed for these tests are determined from the RPV pressure and temperature (P/T) limits required by LCO 3.4.9, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits." These limits are conservatively based on the fracture toughness of the reactor vessel, taking into account anticipated vessel neutron fluence.

With increased reactor vessel fluence over time, the minimum allowable vessel temperature increases at a given pressure. Periodic updates to the RCS P/T limit curves are performed as necessary, based upon the results of analyses of irradiated surveillance specimens removed from the vessel.

APPLICABLE SAFETY ANALYSES

Allowing the reactor to be considered in MODE 4 during hydrostatic or leak testing, when the reactor coolant temperature is > 212°F, effectively provides an exception to MODE 3 requirements, including OPERABILITY of primary containment and the full complement of redundant Emergency Core Cooling Systems. Since the hydrostatic or leak tests are performed nearly water solid (except for an air bubble for pressure control), at low decay heat values, and near MODE 4 conditions, the stored energy in the reactor core will be very low. Under these conditions, the potential for failed fuel and a subsequent increase in coolant activity

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

above the LCO 3.4.6, "RCS Specific Activity," limits are minimized. In addition, the secondary containment will be OPERABLE, in accordance with this Special Operations LCO, and will be capable of handling any airborne radioactivity or steam leaks that could occur during the performance of hydrostatic or leak testing. The required pressure testing conditions provide adequate assurance that the consequences of a recirculation line break (Ref. 2 and 3) will be conservatively bounded by the consequences of the postulated main steam line break outside of primary containment described in Reference 4. Therefore, these requirements will conservatively limit radiation releases to the environment.

In the event of a large primary system leak, the reactor vessel would rapidly depressurize, allowing the low pressure core cooling systems to operate. The capability of the low pressure coolant injection and core spray subsystems, as required in MODE 4 by LCO 3.5.2, "ECCS – Shutdown," would be more than adequate to keep the core flooded under this low decay heat load condition. Small system leaks would be detected by leakage inspections before significant inventory loss occurred.

For the purposes of this test, the protection provided by normally required MODE 4 applicable LCOs, in addition to the secondary containment requirements required to be met by this Special Operations LCO, will ensure acceptable consequences during normal hydrostatic test conditions and during postulated accident conditions.

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of 10 CFR 50.36(c)(2)(ii) (Ref. 5) apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. Operation at reactor coolant temperatures > 212°F can be in accordance with Table 1.1-1 for MODE 3 operation without meeting this Special Operations LCO or its ACTIONS. This option may be required due to P/T

(continued)

BASES

LCO (continued)

limits, however, which require testing at temperatures > 212°F, while performance of inservice leak and hydrostatic testing results in inoperability of subsystems required when > 212°F.

If it is desired to perform these tests while complying with this Special Operations LCO, then the MODE 4 applicable LCOs and specified MODE 3 LCOs must be met. This Special Operations LCO allows changing Table 1.1-1 temperature limits for MODE 4 to "NA" and suspending the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System–Cold Shutdown." The additional requirements for secondary containment LCOs to be met will provide sufficient protection for operations at reactor coolant temperatures > 212°F for the purpose of performing either an inservice leak or hydrostatic test.

This LCO allows primary containment to be open for frequent unobstructed access to perform inspections, and for outage activities on various systems to continue consistent with the MODE 4 applicable requirements that are in effect immediately prior to and immediately after this operation.

APPLICABILITY

The MODE 4 requirements may only be modified for the performance of inservice leak or hydrostatic tests so that these operations can be considered as in MODE 4, even though the reactor coolant temperature is > 212°F. The additional requirement for secondary containment OPERABILITY according to the imposed MODE 3 requirements provides conservatism in the response of the plant to any event that may occur. Operations in all other MODES are unaffected by this LCO.

ACTIONS

A Note has been provided to modify the ACTIONS related to inservice leak and hydrostatic testing operation. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the

(continued)

BASES

ACTIONS (continued)

Condition. However, the Required Actions for each requirement of the LCO not met provide appropriate compensatory measures for separate requirements that are not met. As such, a Note has been provided that allows separate Condition entry for each requirement of the LCO.

A.1

If an LCO specified in LCO 3.10.1 is not met, the ACTIONS applicable to the stated requirements are entered immediately and complied with. Required Action A.1 has been modified by a Note that clarifies the intent of another LCO's Required Action to be in MODE 4 includes reducing the average reactor coolant temperature to ≤ 212°F.

A.2.1 and A.2.2

Required Action A.2.1 and Required Action A.2.2 are alternate Required Actions that can be taken instead of Required Action A.1 to restore compliance with the normal MODE 4 requirements, and thereby exit this Special Operation LCO's Applicability. Activities that could further increase reactor coolant temperature or pressure are suspended immediately, in accordance with Required Action A.2.1, and the reactor coolant temperature is reduced to establish normal MODE 4 requirements. The allowed Completion Time of 24 hours for Required Action A.2.2 is based on engineering judgment and provides sufficient time to reduce the average reactor coolant temperature from the highest expected value to ≤ 212°F with normal cooldown procedures. The Completion Time is also consistent with the time provided in LCO 3.0.3 to reach MODE 4 from MODE 3.

SURVEILLANCE REQUIREMENTS

SR 3.10.1.1

The LCOs made applicable are required to have their Surveillances met to establish that this LCO is being met. A discussion of the applicable SRs is provided in their respective Bases.

(continued)

BASES (continued)

REFERENCES

1. American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI.

2. JAF-CALC-MULT-02238, Revision 1, JAF-HELB Analysis During Hydrostatic Test, May 27, 1999.

3. JAF-CALC-RBC-03400, Revision 0, Evaluation of Reactor Building Ducts and Doors for Recirc. Break During Hydro, August 9, 1999.

4. UFSAR, Section 14.6.1.5.

5. 10 CFR 50.36(c)(2)(ii).

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

DISCUSSION OF CHANGES (DOCs) TO THE CTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

MARKUP OF NUREG-1433, REVISION 1, SPECIFICATION

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1

MARKUP OF NUREG-1433, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1, BASES

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

L1

Insert New Specification 3.10.2

Insert new Specification 3.10.2, "Reactor Mode Switch Interlock Testing" as shown in the JAFNPP Improved Technical Specifications.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.10.2 - REACTOR MODE SWITCH INTERLOCK TESTING

ADMINISTRATIVE CHANGES

None

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

None

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 Proposed ITS 3.10.2 is added to allow reactor mode switch interlock testing to be conducted by placing the reactor mode switch in run, startup/hot standby, or refuel as applicable, while in MODES 3, 4, or 5 and not consider the plant to be in MODE 1 or 2, as applicable. This testing can proceed only if there are no Core Alterations in progress, and if all control rods remain fully inserted in core cells containing one or more fuel assemblies. When these two conditions are met, the situation is equivalent to maintaining the reactor mode switch in shutdown. Control rods are not required to be inserted in empty core cells (i.e., those containing no fuel) because, with one or more core cells in this configuration, the Shutdown Margin is actually greater than when all control rods and all fuel assemblies are inserted. This is recognized in CTS 3.10.A.6 which allows additional reactivity insertions (control rod removal) if all fuel assemblies in the control cell are removed. This is a less restrictive change because this Special Operations Technical Specification provides flexibility to perform certain operations by appropriately modifying requirements of other LCOs which are not allowed by the current Technical Specifications. This allowance is acceptable since all credible mechanisms for inadvertent criticality have been eliminated by the provisions specified in the LCO.

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.10.2 - REACTOR MODE SWITCH INTERLOCK TESTING

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change identified as "Technical Changes - Less Restrictive" and has determined that it does not involve a significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92. The bases for the determination that the proposed change does not involve a significant hazards consideration are discussed below.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   This change permits changing the reactor mode switch from one position to another to confirm certain aspects of associated interlocks during periodic testing. The position of the reactor mode switch is not assumed to be an initiator of any analyzed event. The role of the reactor mode switch in the refuel or shutdown position is to preclude an inadvertent criticality and thereby limiting consequences. The refuel and shutdown positions of the reactor mode switch and the associated interlock functions are provided to preclude an inadvertent criticality which could potentially result in fuel damage. To allow testing of instrumentation associated with the reactor mode switch interlock functions, compensatory measures are provided for assuring that no Core Alterations are in progress, and that all control rods remain fully inserted in core cells containing one or more fuel assemblies. These compensatory measures ensure that no credible mechanisms for an inadvertent criticality are introduced by administratively controlling the required functions of the reactor mode switch interlocks. Control rods are not required to be inserted in empty core cells (i.e., those containing no fuel) because, with one or more core cells in this configuration, the overall Shutdown Margin (SDM) is actually greater than when all control rods and all fuel assemblies are inserted. Therefore, this change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

   This change permits changing the reactor mode switch from one position to another to confirm certain aspects of associated interlocks during periodic testing. Precautions are required to be taken, while in this Special Operations LCO, to maintain all control rods fully inserted in core cells containing at least one fuel assembly and to not allow any core alterations. These two provisions eliminate the possibility of

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

2. (continued)

introducing any credible mechanisms for inadvertent criticality. Additionally, this change will not physically alter the plant (no new or different type of equipment will be installed). Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

The margin of safety will not be reduced because compensatory measures have been added to ensure that no credible mechanisms for inadvertent criticality exist with the reactor mode switch in other than the shutdown or refuel positions. These compensatory measures provide assurance that the required functions of the reactor mode switch will be fulfilled. By ensuring that the reactor mode switch interlocks operate properly, an increased level of confidence that the interlocks will be available to preclude events that could arise which may challenge them is gained. Therefore, this change does not involve a significant reduction in a margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

MARKUP OF NUREG-1433, REVISION 1 SPECIFICATION

3.10 SPECIAL OPERATIONS

3.10.2 Reactor Mode Switch Interlock Testing

LCO 3.10.2 The reactor mode switch position specified in Table 1.1-1 for MODES 3, 4, and 5 may be changed to include the run, startup/hot standby, and refuel position, and operation considered not to be in MODE 1 or 2, to allow testing of instrumentation associated with the reactor mode switch interlock functions, provided:

a. All control rods remain fully inserted in core cells containing one or more fuel assemblies; and

b. No CORE ALTERATIONS are in progress.

APPLICABILITY: MODES 3 and 4 with the reactor mode switch in the run, startup/hot standby, or refuel position,
MODE 5 with the reactor mode switch in the run or startup/hot standby position.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the above requirements not met.	A.1 Suspend CORE ALTERATIONS except for control rod insertion.	Immediately
	AND	
	A.2 Fully insert all insertable control rods in core cells containing one or more fuel assemblies.	1 hour
	AND	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3.1 Place the reactor mode switch in the shutdown position. OR A.3.2 --------NOTE-------- Only applicable in MODE 5. ---------- Place the reactor mode switch in the refuel position.	1 hour 1 hour

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE		FREQUENCY
[LI]	SR 3.10.2.1	Verify all control rods are fully inserted in core cells containing one or more fuel assemblies.	12 hours
[LI]	SR 3.10.2.2	Verify no CORE ALTERATIONS are in progress.	24 hours

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.10.2 - REACTOR MODE SWITCH INTERLOCK TESTING

RETENTION OF EXISTING REQUIREMENT (CLB)

None

PLANT-SPECIFIC WORDING PREFERENCE OR MINOR EDITORIAL IMPROVEMENT (PA)

None

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

None

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

None

DIFFERENCE BASED ON A SUBMITTED, BUT PENDING TRAVELER (TP)

None

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.10 SPECIAL OPERATIONS

B 3.10.2 Reactor Mode Switch Interlock Testing

BASES

BACKGROUND

The purpose of this Special Operations LCO is to permit operation of the reactor mode switch from one position to another to confirm certain aspects of associated interlocks during periodic tests and calibrations in MODES 3, 4, and 5.

The reactor mode switch is a conveniently located, multiposition, keylock switch provided to select the necessary scram functions for various plant conditions (Ref. 1). The reactor mode switch selects the appropriate trip relays for scram functions and provides appropriate bypasses. The mode switch positions and related scram interlock functions are summarized as follows:

a. Shutdown—Initiates a reactor scram; bypasses main steam line isolation ~~and reactor high water level~~ scrams;

b. Refuel—Selects Neutron Monitoring System (NMS) scram function for low neutron flux level operation (but does not disable the average power range monitor scram); bypasses main steam line isolation ~~and reactor high water level scrams~~;

c. Startup/Hot Standby—Selects NMS scram function for low neutron flux level operation (intermediate range monitors and average power range monitors); bypasses main steam line isolation ~~and reactor high water level~~ scrams; and

d. Run—Selects NMS scram function for power range operation.

The reactor mode switch also provides interlocks for such functions as control rod blocks, scram discharge volume trip bypass, refueling interlocks, ~~suppression pool makeup~~, and main steam isolation valve isolations.

(continued)

BASES (continued)

APPLICABLE SAFETY ANALYSES

The acceptance criterion for reactor mode switch interlock testing is to prevent fuel failure by precluding reactivity excursions or core criticality. The interlock functions of the shutdown and refuel positions normally maintained for the reactor mode switch in MODES 3, 4, and 5 are provided to preclude reactivity excursions that could potentially result in fuel failure. Interlock testing that requires moving the reactor mode switch to other positions (run, startup/hot standby, or refuel) while in MODE 3, 4, or 5, requires administratively maintaining all control rods inserted and no ~~other~~ CORE ALTERATIONS in progress. With all control rods inserted in core cells containing one or more fuel assemblies, and no CORE ALTERATIONS in progress, there are no credible mechanisms for unacceptable reactivity excursions during the planned interlock testing.

PA2

PA5

For postulated accidents, such as control rod ~~removal~~ withdrawal error during refueling or loading of fuel with a control rod withdrawn, the accident analysis demonstrates that fuel failure will not occur (Refs. 2 and 3). The withdrawal of a single control rod will not result in criticality when adequate SDM is maintained. Also, loading fuel assemblies into the core with a single control rod withdrawn will not result in criticality, thereby preventing fuel failure.

10 CFR 50.36(c)(2)(ii) (Ref. 4)

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of ~~the NRC Policy Statement~~ apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

X1

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. MODES 3, 4, and 5 operations not specified in Table 1.1-1 can be performed in accordance with other Special Operations LCOs (i.e., LCO 3.10.1, "Inservice Leak and Hydrostatic Testing Operation," LCO 3.10.3, "Single Control Rod Withdrawal—Hot Shutdown," LCO 3.10.4, "Single Control Rod Withdrawal—Cold Shutdown," and LCO 3.10.8, "SDM Test—Refueling") without meeting this LCO or its ACTIONS. If any testing is performed that involves the reactor mode switch interlocks and requires repositioning beyond that specified in Table 1.1-1 for the

(continued)

BASES

LCO (continued)

current MODE of operation, the testing can be performed, provided all interlock functions potentially defeated are administratively controlled. In MODES 3, 4, and 5 with the reactor mode switch in shutdown as specified in Table 1.1-1, all control rods are fully inserted and a control rod block is initiated. Therefore, all control rods in core cells that contain one or more fuel assemblies must be verified fully inserted while in MODES 3, 4, and 5, with the reactor mode switch in other than the shutdown position. The additional LCO requirement to preclude CORE ALTERATIONS is appropriate for MODE 5 operations, as discussed below, and is inherently met in MODES 3 and 4 by the definition of CORE ALTERATIONS, which cannot be performed with the vessel head in place.

In MODE 5, with the reactor mode switch in the refuel position, only one control rod can be withdrawn under the refuel position one-rod-out interlock (LCO 3.9.2, "Refuel Position One-Rod-Out Interlock"). The refueling equipment interlocks (LCO 3.9.1, "Refueling Equipment Interlocks") appropriately control other CORE ALTERATIONS. Due to the increased potential for error in controlling these multiple interlocks, and the limited duration of tests involving the reactor mode switch position, conservative controls are required, consistent with MODES 3 and 4. The additional controls of administratively not permitting other CORE ALTERATIONS will adequately ensure that the reactor does not become critical during these tests.

PA2

APPLICABILITY

Any required periodic interlock testing involving the reactor mode switch, while in MODES 1 and 2, can be performed without the need for Special Operations exceptions. Mode switch manipulations in these MODES would likely result in unit trips. In MODES 3, 4, and 5, this Special Operations LCO is only permitted to be used to allow reactor mode switch interlock testing that cannot conveniently be performed without this allowance. Such interlock testing may consist of required Surveillances, or may be the result of maintenance, repair, or troubleshooting activities. In MODES 3, 4, and 5, the interlock functions provided by the reactor mode switch in shutdown (i.e., all control rods inserted and incapable of withdrawal) and refueling (i.e., refueling interlocks to prevent inadvertent criticality during CORE ALTERATIONS) positions can be

or testing that must be performed prior to entering another MODE

PA5

(continued)

BASES

APPLICABILITY (continued)

administratively controlled adequately during the performance of certain tests.

ACTIONS

A.1, A.2, A.3.1, and A.3.2

These Required Actions are provided to restore compliance with the Technical Specifications overridden by this Special Operations LCO. Restoring compliance will also result in exiting the Applicability of this Special Operations LCO.

All CORE ALTERATIONS, except control rod insertion, if in progress, are immediately suspended in accordance with Required Action A.1, and all insertable control rods in core cells that contain one or more fuel assemblies are fully inserted within 1 hour, in accordance with Required Action A.2. This will preclude potential mechanisms that could lead to criticality. Suspension of CORE ALTERATIONS shall not preclude the completion of movement of a component to a safe condition. Placing the reactor mode switch in the shutdown position will ensure that all inserted control rods remain inserted and result in operating in accordance with Table 1.1-1. Alternatively, if in MODE 5, the reactor mode switch may be placed in the refuel position, which will also result in operating in accordance with Table 1.1-1. A Note is added to Required Action A.3.2 to indicate that this Required Action is not applicable in MODES 3 and 4, since only the shutdown position is allowed in these MODES. The allowed Completion Time of 1 hour for Required Action A.2, Required Action A.3.1, and Required Action A.3.2 provides sufficient time to normally insert the control rods and place the reactor mode switch in the required position, based on operating experience, and is acceptable given that all operations that could increase core reactivity have been suspended.

PA3

Control rods in core cells containing no fuel assemblies do not affect the reactivity of the core and, therefore, do not have to be inserted.

PA2 only

5

PA2 3 and 4

SURVEILLANCE REQUIREMENTS

SR 3.10.2.1 and SR 3.10.2.2

Meeting the requirements of this Special Operations LCO maintains operation consistent with or conservative to operating with the reactor mode switch in the shutdown position (or the refuel position for MODE 5). The functions of the reactor mode switch interlocks that are not in

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.10.2.1 and SR 3.10.2.2 (continued)

effect, due to the testing in progress, are adequately compensated for by the Special Operations LCO requirements. The administrative controls are to be periodically verified to ensure that the operational requirements continue to be met. The Surveillances performed at the 12 hour and 24 hour Frequencies are intended to provide appropriate assurance that each operating shift is aware of and verifies compliance with these Special Operations LCO requirements.

REFERENCES

1. FSAR, Chapter [ ].
2. FSAR, Section [15.1.13].
3. FSAR, Section [15.x.x].

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.10.2 - REACTOR MODE SWITCH INTERLOCK TESTING

RETENTION OF EXISTING REQUIREMENT (CLB)

None

PLANT-SPECIFIC WORDING PREFERENCE OR MINOR EDITORIAL IMPROVEMENT (PA)

PA1 The Bases have been revised to be consistent with the terminology used in other Specifications.

PA2 The Bases have been revised to be consistent with the Specification.

PA3 Additional information has been added for clarity.

PA4 Changes have been made to reflect the plant specific nomenclature.

PA5 The Bases has been revised to be consistent with other places in this Bases.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 The scram interlock functions associated with each position of the reactor mode switch have been revised to reflect the JAFNPP specific design.

DB2 The brackets have been removed and the plant specific reference included.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

None

DIFFERENCE BASED ON A SUBMITTED, BUT PENDING TRAVELER (TP)

None

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

X1 NUREG-1433, Revision 1, Bases reference to "the NRC Policy Statement" has been replaced with 10 CFR 50.36(c)(2)(ii), in accordance with 60 FR 36953 effective August 18, 1995.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.2

Reactor Mode Switch Interlock Testing

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.10 SPECIAL OPERATIONS

3.10.2 Reactor Mode Switch Interlock Testing

LCO 3.10.2 The reactor mode switch position specified in Table 1.1-1 for MODES 3, 4, and 5 may be changed to include the run, startup/hot standby, and refuel position, and operation considered not to be in MODE 1 or 2, to allow testing of instrumentation associated with the reactor mode switch interlock functions, provided:

a. All control rods remain fully inserted in core cells containing one or more fuel assemblies; and

b. No CORE ALTERATIONS are in progress.

APPLICABILITY: MODES 3 and 4 with the reactor mode switch in the run, startup/hot standby, or refuel position,
MODE 5 with the reactor mode switch in the run or startup/hot standby position.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the above requirements not met.	A.1 Suspend CORE ALTERATIONS except for control rod insertion.	Immediately
	AND	
	A.2 Fully insert all insertable control rods in core cells containing one or more fuel assemblies.	1 hour
	AND	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3.1 Place the reactor mode switch in the shutdown position. OR	1 hour
	A.3.2 --------NOTE-------- Only applicable in MODE 5. ---------- Place the reactor mode switch in the refuel position.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.10.2.1	Verify all control rods are fully inserted in core cells containing one or more fuel assemblies.	12 hours
SR 3.10.2.2	Verify no CORE ALTERATIONS are in progress.	24 hours

B 3.10 SPECIAL OPERATIONS

B 3.10.2 Reactor Mode Switch Interlock Testing

BASES

BACKGROUND

The purpose of this Special Operations LCO is to permit operation of the reactor mode switch from one position to another to confirm certain aspects of associated interlocks during periodic tests and calibrations in MODES 3, 4, and 5.

The reactor mode switch is a conveniently located, multiposition, keylock switch provided to select the necessary scram functions for various plant conditions (Ref. 1). The reactor mode switch selects the appropriate trip relays for scram functions and provides appropriate bypasses. The mode switch positions and related scram interlock functions are summarized as follows:

a. Shutdown – Initiates a reactor scram; bypasses main steam line isolation scrams;

b. Refuel – Selects Reactor Protection System (RPS) Neutron Monitoring System (NMS) scram function for low neutron flux level operation (but does not disable the average power range monitor scram); bypasses main steam line isolation;

c. Startup/Hot Standby – Selects RPS NMS scram function for low neutron flux level operation (intermediate range monitors and average power range monitors); bypasses main steam line isolation scram; and

d. Run – Selects RPS NMS scram function for power range operation.

The reactor mode switch also provides interlocks for such functions as control rod blocks, scram discharge instrument volume trip bypass, refueling equipment interlocks, and main steam isolation valve isolations.

APPLICABLE SAFETY ANALYSES

The acceptance criterion for reactor mode switch interlock testing is to prevent fuel failure by precluding reactivity excursions or core criticality. The interlock functions of

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

the shutdown and refuel positions normally maintained for the reactor mode switch in MODES 3, 4, and 5 are provided to preclude reactivity excursions that could potentially result in fuel failure. Interlock testing that requires moving the reactor mode switch to other positions (run, startup/hot standby, or refuel) while in MODE 3, 4, or 5, requires administratively maintaining all control rods inserted and no CORE ALTERATIONS in progress. With all control rods inserted in core cells containing one or more fuel assemblies, and no CORE ALTERATIONS in progress, there are no credible mechanisms for unacceptable reactivity excursions during the planned interlock testing.

For postulated accidents, such as control rod withdrawal error during refueling or loading of fuel with a control rod withdrawn, the accident analysis demonstrates that fuel failure will not occur (Refs. 2 and 3). The withdrawal of a single control rod will not result in criticality when adequate SDM is maintained. Also, loading fuel assemblies into the core with a single control rod withdrawn will not result in criticality, thereby preventing fuel failure.

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of 10 CFR 50.36(c)(2)(ii) (Ref. 4) apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. MODES 3, 4, and 5 operations not specified in Table 1.1-1 can be performed in accordance with other Special Operations LCOs (i.e., LCO 3.10.1, "Inservice Leak and Hydrostatic Testing Operation," LCO 3.10.3, "Single Control Rod Withdrawal - Hot Shutdown," LCO 3.10.4, "Single Control Rod Withdrawal - Cold Shutdown," and LCO 3.10.8, "SDM Test - Refueling") without meeting this LCO or its ACTIONS. If any testing is performed that involves the reactor mode switch interlocks and requires repositioning beyond that specified in Table 1.1-1 for the current MODE of operation, the testing can be performed,

(continued)

BASES

LCO (continued)

provided all interlock functions potentially defeated are administratively controlled. In MODES 3, 4, and 5 with the reactor mode switch in shutdown as specified in Table 1.1-1, all control rods are fully inserted and a control rod block is initiated. Therefore, all control rods in core cells that contain one or more fuel assemblies must be verified fully inserted while in MODES 3, 4, and 5, with the reactor mode switch in other than the shutdown position. The additional LCO requirement to preclude CORE ALTERATIONS is appropriate for MODE 5 operations, as discussed below, and is inherently met in MODES 3 and 4 by the definition of CORE ALTERATIONS, which cannot be performed with the vessel head in place.

In MODE 5, with the reactor mode switch in the refuel position, only one control rod can be withdrawn under the refuel position one-rod-out interlock (LCO 3.9.2, "Refuel Position One-Rod-Out Interlock"). The refueling equipment interlocks (LCO 3.9.1, "Refueling Equipment Interlocks") appropriately control other CORE ALTERATIONS. Due to the increased potential for error in controlling these multiple interlocks, and the limited duration of tests involving the reactor mode switch position, conservative controls are required, consistent with MODES 3 and 4. The additional controls of administratively not permitting CORE ALTERATIONS will adequately ensure that the reactor does not become critical during these tests.

APPLICABILITY

Any required periodic interlock testing involving the reactor mode switch, while in MODES 1 and 2, can be performed without the need for Special Operations exceptions. Mode switch manipulations in these MODES would likely result in plant trips. In MODES 3, 4, and 5, this Special Operations LCO allows reactor mode switch interlock testing that cannot conveniently be performed without this allowance or testing that must be performed prior to entering another MODE. Such interlock testing may consist of required Surveillances, or may be the result of maintenance, repair, or troubleshooting activities. In MODES 3, 4, and 5, the interlock functions provided by the reactor mode switch in shutdown (i.e., all control rods inserted and incapable of withdrawal) and refueling (i.e., refueling interlocks to prevent inadvertent criticality during CORE ALTERATIONS) positions can be administratively

(continued)

BASES

APPLICABILITY (continued)

controlled adequately during the performance of certain tests.

ACTIONS

A.1, A.2, A.3.1, and A.3.2

These Required Actions are provided to restore compliance with the Technical Specifications overridden by this Special Operations LCO. Restoring compliance will also result in exiting the Applicability of this Special Operations LCO.

All CORE ALTERATIONS, except control rod insertion, if in progress, are immediately suspended in accordance with Required Action A.1, and all insertable control rods in core cells that contain one or more fuel assemblies are fully inserted within 1 hour, in accordance with Required Action A.2. This will preclude potential mechanisms that could lead to criticality. Control rods in core cells containing no fuel assemblies do not affect the reactivity of the core and, therefore, do not have to be inserted. Suspension of CORE ALTERATIONS shall not preclude the completion of movement of a component to a safe condition. Placing the reactor mode switch in the shutdown position will ensure that all inserted control rods remain inserted and result in operating in accordance with Table 1.1-1. Alternatively, if in MODE 5, the reactor mode switch may be placed in the refuel position, which will also result in operating in accordance with Table 1.1-1. A Note is added to Required Action A.3.2 to indicate that this Required Action is only applicable in MODE 5, since only the shutdown position is allowed in MODES 3 and 4. The allowed Completion Time of 1 hour for Required Action A.2, Required Action A.3.1, and Required Action A.3.2 provides sufficient time to normally insert the control rods and place the reactor mode switch in the required position, based on operating experience, and is acceptable given that all operations that could increase core reactivity have been suspended.

SURVEILLANCE REQUIREMENTS

SR 3.10.2.1 and SR 3.10.2.2

Meeting the requirements of this Special Operations LCO maintains operation consistent with or conservative to

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.10.2.1 and SR 3.10.2.2 (continued)

operating with the reactor mode switch in the shutdown position (or the refuel position for MODE 5). The functions of the reactor mode switch interlocks that are not in effect, due to the testing in progress, are adequately compensated for by the Special Operations LCO requirements. The administrative controls are to be periodically verified to ensure that the operational requirements continue to be met. The Surveillances performed at the 12 hour and 24 hour Frequencies are intended to provide appropriate assurance that each operating shift is aware of and verifies compliance with these Special Operations LCO requirements.

REFERENCES

1. UFSAR, Section 7.2.
2. UFSAR, Section 14.5.4.3.
3. UFSAR, Section 14.5.4.4.
4. 10 CFR 50.36(c)(2)(ii).

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.3

Single Control Rod Withdrawal Hot Shutdown

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

DISCUSSION OF CHANGES (DOCs) TO THE CTS

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

MARKUP OF NUREG-1433, REVISION 1, SPECIFICATION

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1

MARKUP OF NUREG-1433, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES (JFDs) FROM NUREG-1433, REVISION 1, BASES

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.10.3

Single Control Rod Withdrawal Hot Shutdown

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Insert New Specification 3.10.3

(L1)

(D)

Insert new Specification 3.10.3 - "Single Control Rod Withdrawal – Hot Shutdown" as shown in the JAFNPP Improved Technical Specifications.