SUMMARY OF CHANGES TO ITS SECTION 3.7

SUMMARY OF CHANGES TO ITS SECTION 3.7 - REVISION E

Source of Change	Summary of Change	Affected Pages
Amendment 259	Amendment 259 added in an allowance to CTS 3.5.B.3 that, during the installation of modification 99-095 to the "A" RHRSW strainer, the RHRSW A loop could be inoperable for up to 11 days (versus the normal 7 day time). This CTS mark-up page has been added into the ITS submittal package. However, since the modification has been completed, a new Discussion of Change has been written to delete the allowance from the ITS (i.e., the allowance is not needed in the ITS).	**Specification 3.7.1** CTS mark-up p 2 of 2 DOC A2 (DOCs p 1 of 6)
RAI 3.7.2-2	The Background section of the ITS Bases uses the term "subcooling" when alluding to the fact that frazil ice forms in supercooled water. The NRC requested that the Bases be enhanced to clarify the term "subcooling." The parenthetical statement "(i.e., water subcooled below the normal freezing point without the formation of bulk ice)" has been added for clarity. The Background section of the ITS Bases, when describing the bar rack deicing heaters, also includes the sentence "The heating system has been designed to be very reliable and to ensure continuous plant operation and to mitigate the consequences of a design basis event." The NRC did not see where this sentence aided in the understanding of the heaters. This sentence has been deleted from the ITS Bases.	**Specification 3.7.2** ITS Bases mark-up p Insert Page B 3.7-7 Retyped ITS Bases p B 3.7-8
RAI 3.7.2-3	ITS SR 3.7.2.1 requires the ES pump screen well level be ≥ 236.5 ft mean sea level. However, the Background section of the Bases includes a statement that "the top surface of the intake structure is at the 233 feet elevation (above sea level), which is approximately 10 feet below the minimum lake level." The NRC commented that this statement is inconsistent with the ITS SR 3.7.2.1 requirements, in that 243 feet (233 feet plus 10 feet) is not the minimum required lake level. The Bases statement concerning "10 feet below the minimum lake level" was intended to refer to the historically lowest monthly mean lake level. The Bases has been modified to reflect this intention (the word "minimum" has been replaced with "historically lowest monthly mean."	**Specification 3.7.2** ITS Bases mark-up p Insert Page B 3.7-7 Retyped ITS Bases p B 3.7-8

SUMMARY OF CHANGES TO ITS SECTION 3.7 - REVISION E

Source of Change	Summary of Change	Affected Pages
TSTF-287	In the current ITS, the control room boundary is part of the CREVAS System, and the ITS requires the control room boundary to be maintained. Since the design of the boundary only includes one door for routine entry and exit (i.e., a double-door airlock design is not provided), when the single door is opened for routine entry and exit, technically the SR for the control room boundary is not met and both CREVAS subsystems are inoperable. This would required a LCO 3.0.3 entry. TSTF-287 provides a new ACTION (ACTION B) to allow the control room boundary to be inoperable for 24 hours prior to requiring a unit shutdown. In addition, the TSTF adds a Note to the LCO to allow the control room boundary to be opened intermittently under administrative controls. This change is allowed provided JAFNPP commits to developing written procedures describing the compensatory measures to be taken in the event of an intentional or unintentional entry into ACTION B.	**Specification 3.7.3** CTS mark-up p 1 of 3, 2 of 3, and 3 of 3 DOCs M3 and M4 (DOCs p 3 of 8 and 4 of 8) ITS mark-up p 3.7-9, 3.7-10, and 3.7-11 JFD TA1 (JFDs p 1 of 2) ITS Bases mark-up p B 3.7-19, Insert Page B 3.7-19, B 3.7-20, Insert Page B 3.7-20, B 3.7-21, and B 3.7-22 Bases JFD TA1 (Bases JFDs p 2 of 2) Retyped ITS p 3.7-7, 3.7-8, and 3.7-9 Retyped ITS Bases p B 3.7-17, B 3.7-18, B 3.7-19, B 3.7-20, and B 3.7-21
TSTF-362	TSTF-362 has been incorporated into the Bases for SR 3.7.3.2 and the Reference section. The TSTF deletes the reference to Regulatory Guide 1.52, Revision 2.	**Specification 3.7.3** ITS Bases mark-up p B 3.7-23 and B 3.7-24 Bases JFD TA2 (Bases JFDs p 2 of 2) Retyped ITS Bases p B 3.7-21 and B 3.7-22
Amendment 269	This amendment modified the CREVAS filter testing requirements in CTS 4.11.A.1 and 4.11.A.2. While the specifically modified requirements were moved and discussed in ITS 5.5.8 and do not impact ITS 3.7.3, the amendment resulted in renumbering of CTS requirements covered by ITS 3.7.3. Therefore, the CTS mark-up pages and Discussion of Changes have been updated to reflect the most current CTS pages and CTS numbers.	**Specification 3.7.3** CTS mark-up p 2 of 3 and 3 of 3 DOCs A2, M5, LB1, and L1 (DOCs p 1 of 8, 4 of 8, 6 of 8, and 8 of 8

Source of Change	Summary of Change	Affected Pages
TSTF-319	LCO 3.7.6 requires the Main Turbine Bypass System to be Operable. Alternately, the LCO allows a MCPR penalty (which is specified in the COLR) to be applied, based on the appropriate MCPR with the Main Turbine Bypass System inoperable. The TSTF adds an additional restriction that an APLHGR penalty must also be taken. Many BWR/4's have discovered that with the Main Turbine Bypass System inoperable, an APLHGR penalty (also specified in the COLR) is also required to be taken to ensure thermal limits are not exceeded. However, for JAFNPP, the proper extra limit is LHGR, since this limit is for transients. Therefore, this restriction (LHGR) has been added to the ITS.	<u>**Specification 3.7.6**</u> DOC M1 (DOCs p 1 of 1) ITS mark-up p 3.7-18 and Insert Page 3.7-18 JFD TA1 (JFDs p 1 of 2) ITS Bases mark-up p B 3.7-33, Insert p B 3.7-33 (deleted), B 3.7-34, B 3.7-35, and Insert Page B 3.7-36 Bases JFD TA1 (Bases JFDs p 1 of 2) Retyped ITS 3.7-16 Retyped ITS Bases p B 3.7-33, B 3.7-34, B 3.7-35, and B 3.7-36
New Change	The second option of ITS LCO 3.7.6 includes a Note that states the second option is allowed if supported by the current reload analyses. This Note is not necessary since the second option specifically states that the MCPR and APLHGR limits for an inoperable Main Turbine Bypass System, *as specified in the COLR*, (italics added) must be made applicable. Thus, if the COLR does not provide any MCPR and APLHGR limits for when the Main Turbine Bypass System is inoperable, the option obviously cannot be applied. Therefore, this Note has been deleted.	<u>**Specification 3.7.6**</u> DOC M2 (DOCs p 1 of 2) ITS mark-up p 3.7-18 JFD X2 (JFDs p 1 of 2) Bases mark-up p B 3.7-34 and Insert Page B 3.7-34 (deleted) Bases JFD X3 (Bases JFDs p 2 of 2) Retyped ITS p 3.7-16 Retyped ITS Bases p B 3.7-34 and B 3.7-35
New Change	ITS SR 3.7.6.1 requires the main turbine bypass valves to be cycled every 31 days. This is a new Surveillance that is not in the CTS. It was added to be consistent with NUREG-1433. However, currently, this test is being performed every refueling outage. A review of historical maintenance and testing data for the past 10 years has shown that this test has always passed when performed every refueling outage (i.e., the review showed no failures of any bypass valve to properly cycle). Therefore, the Frequency of SR 3.7.6.1 is being changed to 24 months.	<u>**Specification 3.7.6**</u> ITS mark-up p 3.7-18 JFD X3 (JFDs p 2 of 2) Bases mark-up p B 3.7-35 Bases JFD X4 (Bases JFDs p 2 of 2) Retyped ITS p 3.7-17 Retyped ITS Bases p B 3.7-35

SUMMARY OF CHANGES TO ITS SECTION 3.7 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.7.7-1 (Part 2)	DOC L2 explains that the weekly frequency for checking pool level is acceptable because the level is maintained constant and because an alarm would alert operators before level dropped to the limit - implying that level is normally maintained above the 21 ft 7 inches level limit. However, DOC L1 indicates that unless fuel is being moved in the pool, the level may be maintained lower, but at or above the current limit (about 17 ft), a limit which is being moved to the FSAR. Since the verification for the lower limit is not being maintained, the NRC requested DOC L2 be revised to discuss the usual plant practice for maintaining and monitoring pool level. The revision for DOC L2 has been provided based on the JAFNPP RAI response.	**Specification 3.7.7** DOC L2 (DOCs p 3 of 3)
RAI CTS 3/4.11.C-1	CTS 3/4.11.C, Battery Room Ventilation, DOC LA1 incorrectly reference CTS 3/4.9.D. This has been changed to the proper CTS reference (CTS 3/4.11.C)	**CTS 3/4.11.C** DOC LA1 (DOCs p 1 of 2)

ITS CONVERSION PACKAGE

SECTION 3.7 - PLANT SYSTEMS

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

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: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Specification 3.7.1 (A1)

See ITS: 3.5.1

3.5 (cont'd)

5. All recirculation pump discharge valves shall be operable prior to reactor startup (or closed if permitted elsewhere in these specifications).

6. If the requirements of 3.5.A cannot be met, the reactor shall be placed in the cold condition within 24 hrs.

[3.7.1] B. Containment Cooling Mode (of the RHR System) [Residual Heat Removal Service Water (RHRSW) System]

See ITS 3.6.2.3 and 3.6.1.9

[LCO 3.7.1] 1. Both subsystems of the containment cooling mode, each including two RHR and two RHRSW pumps, shall be operable whenever there is irradiated fuel in the reactor vessel, prior to startup from a cold condition, and reactor coolant temperature ≥212°F except as specified below. [subsystems] (LA1)

[Applicability] MODES 1, 2, and 3

4.5 (cont'd)

5. All recirculation pump discharge valves shall be tested for operability any time the reactor is in the cold condition exceeding 48 hours, if operability tests have not been performed during the preceding 31 days.

B. Containment Cooling Mode (of the RHR System)

1. Subsystems of the containment cooling mode shall be demonstrated operable by performing:

See ITS: 3.6.2.3, 3.6.1.9

	Item	Frequency
a.	a pump operability and flow rate test on the RHR pumps.	Per Surveillance Requirement 4.5.A.3
b.	an operability test of the RHR containment cooling mode motor operated valves.	In accordance with the Inservice Testing Program
c.	an operability test on the RHRSW pumps and associated motor operated valves.	In accordance with the Inservice Testing Program
d.	a flow rate test verifying a flow rate of 4000 gpm for each RHRSW pump and a total flow rate of 8000 gpm for two RHRSW pumps operating in parallel.	In accordance with the Inservice Testing Program

(LA2)

Amendment No. ~~26, 85, 104, 134, 148, 151,~~ 241

Specification 3.7.1 (A1)

3.5 (cont'd)

4.5 (cont'd)

	Item	Frequency
~~e.~~ [SR 3.7.1.1]	a verification that each valve (manual, power operated, or automatic) in the flowpath that is not locked, sealed or otherwise secured in position, is in the correct position. (L5) or can be aligned to the correct position	Once per 31 Days
f.	an air test shall be performed on the containment spray headers and nozzles. <See ITS 3.6.1.9>	Once per 5 Years

[ACTION A] ~~2.~~ Should one RHRSW pump of the components required in 3.5.B.1 above be made or found inoperable, continued reactor operation is permissible only during the succeeding 30 days ~~provided that during such 30 days all remaining components of the containment cooling mode subsystems are operable.~~ (L1)

(M2) <ADD: ACTION C NOTE>

[ACTION C] [ACTION B] ~~3.~~ Should one of the containment cooling subsystems become inoperable ~~or should one RHRSW pump in each subsystem become inoperable,~~ continued reactor operation is permissible for a period not to exceed 7 days ~~*~~ (A2)

[ACTION E] ~~4.~~ If the requirements of 3.5.B.2 or 3.5.B.3 cannot be met, the reactor shall be placed in a cold condition within 24 hr.

~~5.~~ Low power physics testing and reactor operator training shall be permitted with reactor coolant temperature <212°F with an inoperable component(s) as specified in 3.5.B above. <See ITS 3.10.8>

(L4) ~~2. When it is determined that one RHRSW pump of the components required in 3.5.B.1 above is inoperable, the remaining components of the containment cooling mode subsystems shall be verified to be operable immediately and daily thereafter.~~

~~3. When one containment cooling subsystem becomes inoperable, the redundant containment cooling subsystem shall be verified to be operable immediately and daily thereafter. When one RHRSW pump in each subsystem becomes inoperable, the remaining components of the containment cooling subsystems shall be verified to be operable immediately and daily thereafter.~~

~~*During the installation of modification 89-095 to the "A" RHRSW strainer, continued reactor operation is permissible for a period not to exceed 11 days.~~ (A2)

<ADD: ACTION D> (L2)

AMD #259

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

DISCUSSION OF CHANGES (DOCs) TO THE CTS

ADMINISTRATIVE CHANGES

A1 In the conversion of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Current Technical Specifications (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)).

Amd #259

A2 CTS 3.5.B.3, Footnote #, provides an operational allowance for installation of modification 99-095. This footnote allowance is deleted since the modification has been completed. As such, this is an administrative change.

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.5.B.4 requires the reactor to be placed in a cold condition within 24 hours when CTS 3.5.B.2 or 3.5.B.3 cannot be met. CTS 3.5.B.2 covers the conditions with one RHRSW pump inoperable while CTS 3.5.B.4 covers the condition with one containment cooling subsystem (in this case one RHRSW subsystem) or one RHRSW pump in each subsystem inoperable. When two RHRSW subsystems are inoperable the plant must enter CTS 3.0.C and the plant must be placed in a cold shutdown within 24 hours. In ITS 3.7.1, all of the default actions are covered in ACTION E. An additional ACTION has been added to allow time to restore one RHRSW subsystem to Operable status when two RHRSW subsystems are found to be inoperable (ACTION D), however this change is addressed in L2. ITS 3.7.1 Required Action E.1 will require the plant be in MODE 3 within 12 hours when the Required Action and associated Completion Time of ACTIONS A, B, C, or D are not. In addition, ITS 3.7.1 Required Action E.2 requires the plant to be in MODE 4 in 36 hours (L3). This change is more restrictive because it provides an additional requirement to place the plant in MODE 3 in 12 hours. The allowed Completion Times in Required Action E.1 and E.2 are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. However, the 12 hour Completion Time ensures timely action is taken to place the plant in a shutdown condition (MODE 3). The consequences of any design bases event is significantly reduced when plant is shutdown. These Completion Times are consistent with NUREG-1433, Revision 1.

TECHNICAL CHANGES - MORE RESTRICTIVE (continued)

M2 CTS 3.5.B.3 allows 7 days of operation with one containment cooling subsystem inoperable (e.g., RHR service water subsystem). A Note is proposed to be added to CTS 3.5.B.3 (proposed ITS 3.7.1 Required Action C.1) which would require the applicable Conditions and Required Actions of ITS 3.4.7, "RHR Shutdown Cooling System - Hot Shutdown" to be entered for an RHR SDC subsystem made inoperable by the inoperable RHR Service Water System. This Note is an exception to proposed LCO 3.0.6, which ensures proper ACTIONS are taken for RHR shutdown cooling. This Note is an added requirement to cascade to ITS 3.4.7 which does not exist in the CTS and constitutes a more restrictive change but necessary to ensure the proper actions are taken.

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The details in CTS 3.5.B.1 concerning the number of pumps required in each RHR service water subsystem is proposed to be relocated to the Bases. The requirement in the proposed LCO that two RHR service water subsystems must be OPERABLE and the definition of OPERABILITY suffices. The proposed Bases provides the details that two RHR service water pumps must be OPERABLE in each subsystem thus maintaining the current requirement. Therefore, this detail is not required to be included in the ITS to provide adequate protection of the public health and safety. Changes to the relocated requirements in the Bases will be controlled by the provisions in Chapter 5 of the Technical Specifications.

LA2 The inservice testing requirements in CTS 4.5.B.1.c and 4.5.B.1.d for the RHR service water system are proposed to be relocated to the IST program. This testing is required to ensure the RHRSW pumps and valves are Operable in order to perform their intended function. However, the IST Program, required by 10 CFR 50.55a, provides requirements for the testing of all ASME Code Class 1, 2, and 3 pumps and valves in accordance with Section XI of the ASME Code. The IST Program and implementing procedures ensure compliance with 10 CFR 50.55a, which is required by the JAFNPP Operating License. These controls are adequate to ensure the required testing to verify Operability is performed. Therefore, this detail is not required to be included in the ITS to provide adequate protection of the public health and safety. Changes to the relocated requirements in the IST Program will be controlled by the provisions of 10 CFR 50.59.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 3.5.B.2 allows operation to continue for 30 days with one RHR service water pump inoperable provided that during such 30 days all remaining components of the containment cooling mode subsystems are operable. This means that all four RHR pumps are OPERABLE as well as the remaining RHR service water pumps. If one or more pumps in this same subsystem were to become inoperable CTS 3.5.B.3 must be entered and continued operation is permitted for only a 7 day period. If any RHR pump in the other subsystem or two RHR service water pumps in the other subsystem were to become inoperable, CTS 3.5.B.4 must be entered and the plant must be placed in a cold condition in 24 hours.

ITS 3.7.1 does not include the requirement that all remaining components of the containment cooling mode subsystems are operable. The requirements of RHR service water are maintained in ITS 3.7.1 and the requirements of other containment cooling systems have been included in ITS 3.6.2.3, "RHR Suppression Pool Cooling" and ITS 3.6.1.9 "RHR Containment Spray". Pursuant to LCO 3.0.6 when a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. In this event, additional evaluations and limitations may be required to be met in accordance with Specification 5.5.12, "Safety Function Determination Program (SFDP). If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

In both, ITS 3.6.2.3 and ITS 3.6.1.9 an OPERABLE subsystem consists of only one RHR pump (see Discussion of Changes for these Specifications), since the containment safety function can be met with an RHR pump and two of its associated RHR service water pumps or with an RHR pump and an RHR service water pump in each subsystem. With both subsystems inoperable, 8 hours is allowed to restore one subsystem to OPERABLE status. Therefore, in the ITS with one RHR service water pump inoperable and if both RHR pumps were inoperable in the other subsystem, the 30 day allowance is permitted as long as the inoperability does not affect the LPCI injection mode (e.g. flow path to heat exchanger not available). In this case the ACTIONS of ITS 3.5.1, "ECCS - Operating" will govern the Completion Times prior to commencing a shutdown.

This change is considered less restrictive since the current requirement requires the default actions to be entered immediately when any RHR pump (since CTS 3.5.B.3 allows operation to continue with one RHRSW pump inoperable in both subsystems or if one containment cooling system is

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 (continued)

otherwise inoperable) is inoperable in the other subsystem while the ITS will only require default conditions to be entered when a complete loss of safety function exist. Safety function is maintained if at least one RHR pump and two of the associated RHR service water pumps are Operable or one RHR pump and one RHR service water pump is available in each subsystem. If this configuration is not met then ITS 3.6.2.3 or ITS 3.6.1.9 ACTION B must be entered where 8 hours is provided to restore a subsystem to OPERABLE status. This change is considered acceptable since the proposed Safety Function Determination Program will ensure the required actions for loss of function is monitored and that the appropriate supported system LCO be entered (e.g. ITS 3.6.2.3). This change is consistent with NUREG-1433, Revision 1.

L2 CTS 3.5.B does not provide specific ACTIONS for two inoperable Residual Heat Removal (RHR) service water subsystems. A shutdown is required by CTS 3.0.C and the plant must be placed in a cold condition within 24 hours. In the ITS, this inoperability is covered in ITS 3.7.1 ACTION D. ITS ACTION D will allow 8 hours (Required Action D.1) to restore one RHR service water subsystem to OPERABLE status. In this condition, the safety function of the RHR Heat Removal System can not be met and therefore a limited amount of time is provided. This Completion Time is equivalent to the time provided in ITS 3.6.2.3, "RHR Suppression Pool Cooling", and ITS 3.6.1.9, "RHR Containment Spray" for two RHR subsystems inoperable. The Completion Time is also acceptable due to the low probability of being in this condition and a DBA occurring within the added 8 hour period.

L3 CTS 3.5.B.4 requires the reactor to be placed in a cold condition within 24 hours when CTS 3.5.B.2 or 3.5.B.3 cannot be met. CTS 3.5.B.2 covers the conditions with one RHRSW pump inoperable while CTS 3.5.B.4 covers the condition with one containment cooling subsystem (in this case one RHRSW subsystem) or one RHRSW pump in each subsystem inoperable. When two RHRSW subsystems are inoperable the plant must enter CTS 3.0.C and the plant must be placed in a cold shutdown within 24 hours. In ITS 3.7.1, all of the default actions are covered in ACTION E. An additional ACTION has been added to allow time to restore one RHRSW subsystem to Operable status when two RHRSW subsystems are found to be inoperable (ACTION D), however this change is addressed in L2. The proposed requirement, ITS 3.7.1, Required Action E.2, extends the time allowed for the plant to be in MODE 4, from 24 hours to 36 hours.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 (continued)

However, ITS 3.7.1 Required Action E.1 requires the plant to be in MODE 3 in 12 hours (M1). This change is less restrictive because it extends the time for the plant to be in MODE 4 from 24 hours to 36 hours. The allowed Completion Times in Required Actions E.1 and E.2 are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. The consequences of an accident are not significantly increased because ITS 3.7.1 Required Action E.1 will require the plant be placed in MODE 3 within 12 hours under the same conditions. This change reduces the time the reactor would be allowed to continue to operate once the condition is identified. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cool down is already in progress. These Completion Times are consistent with NUREG-1433, Revision 1.

L4 CTS 4.5.B.2 requires the remaining components of the containment cooling mode subsystems to be verified to be operable immediately and daily thereafter when one RHR service water pump is inoperable. CTS 4.5.B.3 requires the redundant containment cooling subsystem to be verified to be operable immediately and daily thereafter when one containment cooling subsystem becomes inoperable. In addition, if one RHR service water pump in each subsystem becomes inoperable, the remaining components of the containment cooling mode subsystem shall be verified to be operable immediately and daily thereafter. These verifications are an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. Plant and equipment status is continuously monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the other subsystems when one RHR service water subsystem is inoperable is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC) (continued)

L5 CTS 4.5.B.1.e requires a verification that each RHRSW valve (manual, power operated, or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in the correct position, once per 31 days. ITS SR 3.7.1.1 will require this same surveillance, however an allowance has been added which will allow the valve to be misaligned as long as it can be aligned to the correct position. This change is acceptable since the RHRSW System is a manually initiated system and therefore the entire system including pumps and valves must be started or placed in the correct position in order to satisfy the system safety function. This change is necessary to allow valve operability testing required by the IST program without declaring the system inoperable. This change is consistent with NUREG-1433, Revision 1.

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.7.1 - RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) SYSTEM

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?

   The change allows operation to continue in accordance with the ACTIONS of ITS 3.7.1, 3.6.2.3, RHR Suppression Pool Cooling" and 3.6.1.9, "RHR Containment Spray" as long as the safety function of the containment cooling mode is maintained. If the safety function is lost then a Completion Time of 8 hours is provided to restore at least one subsystem to Operable status. Since the containment cooling mode systems are not considered to be an initiator of any accident this change does not significantly increase the probability of an accident previously evaluated. The change allows operation to continue in accordance with the ACTIONS of ITS 3.7.1, 3.6.2.3 and 3.6.1.9 as long as the safety function of the containment cooling mode is maintained. If the safety function is lost then a Completion Time of 8 hours is provided to restore at least one subsystem to Operable status. As long as the safety function is maintained the consequences of an accident previously evaluated is bounded by the UFSAR analysis assuming no additional component failures. When the safety function is lost the consequences will be the same as when CTS 3.0.C is entered when the requirements of CTS 3.5.B.2 cannot be met (e.g., remaining components of the containment cooling mode subsystems become inoperable). Therefore this change does not significantly increase the 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 change allows operation to continue in accordance with the ACTIONS of ITS 3.7.1, 3.6.2.3 and 3.6.1.9 as long as the safety function of the containment cooling mode is maintained. This will not create the possibility of an accident. This change will not physically alter the plant (no new or different type of equipment will be installed). The changes in methods governing normal plant operation are consistent with the current safety analysis assumptions. Therefore, this change will not create the possibility of a new or different kind of accident from

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

2. (continued)

any accident previously evaluated.

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

The change allows operation to continue in accordance with the ACTIONS of ITS 3.7.1, 3.6.2.3 and 3.6.1.9 as long as the safety function of the containment cooling mode is maintained. The margin of safety is not significantly reduced because the chance of an event occurring within the constraints of the associated LCOs is small. While the Operability of the RHR and RHR Service Water System is implicitly assumed in the analysis assumptions, allowing time to restore these systems to Operable status does not significantly decrease the margin of safety. This allows more time to comply with the LCO instead of having to shutdown. A reduction in power is considered a transient due to the thermal effects it has on plant equipment. Therefore, this change does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 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 adds an ACTION when two RHR service water subsystems are inoperable allowing 8 hours to restore one subsystem to Operable status. The proposed change will not affect the probability of an accident. The RHR Service Water System is not assumed to be an initiator of any analyzed event. Allowing, additional time to comply with the LCO will not significantly affect the consequences of an accident. The chance of an event occurring while in this condition is remote and remains the same with the added allowed outage time. The additional time will allow time to restore one RHRSW subsystem to Operable status and possibly avoid a shutdown. Shutting down the plant is a transient which puts thermal stress on components. Also, the 8 hour Completion Time is consistent with Completion Time for two inoperable subsystems in the RHR suppression pool cooling and spray Specifications. This change will not alter assumptions relative to the mitigation of an accident or transient event. 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 adds an ACTION when two RHRSW subsystems are inoperable and allows 8 hours to restore one RHRSW subsystem to Operable status. This change essentially relaxes the allowed outage time since the current requirement will require entry into CTS 3.0.C in these conditions. The added allowed outage time will not create the possibility of an accident. This change will not physically alter the plant (no new or different type of equipment will be installed). The changes in methods governing normal plant operation are consistent with the current safety analysis assumptions. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

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

   This change adds an ACTION when two RHRSW subsystems are inoperable and allows 8 hours to restore one RHRSW subsystem to Operable status. This change essentially relaxes the allowed outage time since the current requirement will require entry into CTS 3.0.C in these conditions. The added allowed outage time will not create the possibility of an accident. The margin of safety is not significantly reduced because the chance of an event occurring while in this condition is remote and remains the same with the added 8 hour allowed outage time. While the Operability of the RHR Service Water System is implicitly assumed in the analysis assumptions, allowing time to restore an RHR service water subsystem to Operable status does not significantly decrease the margin of safety. This allows more time to comply with the LCO instead of having to shutdown. A reduction in power is considered a transient due to the thermal effects it has on plant equipment. Also, the proposed Completion Times are consistent with the Completion Times for two inoperable RHR suppression pool cooling and spray subsystems. Therefore, this change does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 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?

   The proposed change does not increase the probability of an accident because the change extends the time to Cold Shutdown from 24 hours to 36 hours when any Required Action and associated Completion Time is not met. Shutdown Completion Times are not assumed in the initiation of any analyzed event. The change will not allow continuous operation with inoperable RHRSW subsystems. The consequences of an accident are not increased because LCO 3.7.1 Required Action E.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that any Required Action and associated Completion is not met. This change reduces the time the reactor would be allowed to continue to operate once the condition is identified. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cooldown is already in progress. In addition, the consequences of an event occurring during the proposed shutdown Completion Time are the same as the consequences of an event occurring during the existing shutdown Completion Time. Therefore, the change does not involve a significant increase in the probability or consequences of an event 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 will not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, modified, tested, or inspected. The change increases the time allowed to Cold Shutdown from 24 hours to 36 hours. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 CHANGE

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

The change extends the time allowed to Cold Shutdown from 24 hours to 36 hours when any Required Action and associated Completion Time is not met. There is no reduction in the margin of safety because LCO 3.7.1 Required Action E.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that any Required Action or Completion Time associated with inoperable RHRSW subsystems cannot be satisfied. This concurrent change reduces the time the reactor would be allowed to continue to operate once the condition is identified. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cooldown is already in progress. In addition, this change provides the benefit of a reduced potential for a plant event that could challenge safety systems by providing additional time to reduce pressure in a controlled and orderly manner. Therefore, this change does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L4 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 proposed change deletes the requirements to periodically verify the Operability of the other containment cooling mode components when inoperabilities exists in one RHR Service Water pump, one RHR Service Water pump in each subsystem and when two RHR Service Water pumps are inoperable in one subsystem. These verifications are not considered in the initiation of any previously analyzed accident. Therefore, this change does not significantly increase the frequency of such accidents. These verifications are an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. In addition, plant and equipment status is continuously monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the other subsystems or components of the containment cooling mode when RHRSW pumps are inoperable is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions. The status of plant and equipment will continue to be monitored to assure the potential consequences are not significantly increased. Therefore, this change does not significantly increase the consequences of any previously analyzed accident.

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

   This proposed change deletes the requirements to periodically verify the Operability of the other containment cooling mode components when inoperabilities exists in one RHR Service Water pump, one RHR Service Water pump in each subsystem or when two RHR Service Water pumps are

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L4 CHANGE

2. (continued)

inoperable in one subsystem, but does not change the practice of continuously monitoring plant and equipment status. The status of the plant and equipment will continue to be monitored to assure the possibility for a new or different kind of accident are not created. Therefore, this change does not create the possibility of a new or different kind of accident from any previously analyzed accident.

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

These verifications of the status of equipment Operability is an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. Plant and equipment status is continuously monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the other subsystems or components of the containment cooling mode when RHRSW pumps are inoperable is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions. The status of plant and equipment will continue to be monitored to assure appropriate previously approved actions are taken in the event of equipment inoperabilities. Therefore, this change does not involve a significant reduction in the margin of safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L5 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?

   The change allows RHRSW valves to be misaligned as long as the valves can be aligned to the correct position. Since the misalignment of RHRSW System valves is not considered to be an initiator of any accident this change does not significantly increase the probability of an accident previously evaluated. The change allows a RHRSW valves to be misaligned as long as the valves can be aligned to the correct position. However, as stated in the Surveillance this is only permitted as long as the valve can be aligned to the correct position. This change is acceptable since the RHRSW System is a manually initiated system and therefore the entire system including pumps and valves must be started or placed in the correct position in order to satisfy the system safety function. This change is necessary to allow valve operability testing required by the IST program without declaring the system inoperable. The consequences of an accident are not changed since the RHRSW System valves will not be inoperable when misaligned since they can be aligned to the correct position to perform the safety function. Therefore, this change does not significantly increase the 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 change allows RHRSW valves to be misaligned as long as the valves can be aligned to the correct position. This will not create the possibility of an accident. This change will not physically alter the plant (no new or different type of equipment will be installed). The changes in methods governing normal plant operation are consistent with the current safety analysis assumptions. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L5 CHANGE

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

The change allows RHRSW valves to be misaligned as long as the valves can be aligned to the correct position. This change is acceptable since the RHRSW System is a manually initiated system and therefore the entire system including pumps and valves must be started or placed in the correct position in order to satisfy the system safety function. This change is necessary to allow valve operability testing required by the IST program without declaring the system inoperable. The valves will still be Operable when misaligned, therefore the margin of safety is not significantly reduced since the valves can be aligned to the correct position, if required to satisfy the requirements of the safety analysis. Therefore, this change does not involve a significant reduction in a margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

MARKUP OF NUREG-1433, REVISION 1
SPECIFICATION

3.7 PLANT SYSTEMS

3.7.1 Residual Heat Removal Service Water (RHRSW) System

[CTS 3.5.B.1] LCO 3.7.1 Two RHRSW subsystems shall be OPERABLE.

[CTS 3.5.B.1] APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
[3.5.B.2] A. One RHRSW pump inoperable.	A.1 Restore RHRSW pump to OPERABLE status.	30 days
[3.5.B.3] B. One RHRSW pump in each subsystem inoperable.	B.1 Restore one RHRSW pump to OPERABLE status.	7 days
[M3] [3.5.B.3] C. One RHRSW subsystem inoperable for reasons other than Condition A.	C.1 --------NOTE-------- (PA1) Enter applicable Conditions and Required Actions of LCO 3.4.8 (7) (PA2), "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown," for RHR shutdown cooling (PA3) made inoperable by RHRSW System. ------------------------- Restore RHRSW subsystem to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. Both RHRSW subsystems inoperable for reasons other than Condition B.	D.1	---------NOTE--------- Enter applicable Conditions and Required Actions of LCO 3.4.8 for [RHR shutdown cooling] made inoperable by RHRSW System. --------------------- Restore one RHRSW subsystem to OPERABLE status.	[8] hours
E. Required Action and associated Completion Time not met.	E.1	Be in MODE 3.	12 hours
	AND		
	E.2	Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.1.1	Verify each RHRSW manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.	31 days

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.7.1 - RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) SYSTEM

RETENTION OF EXISTING REQUIREMENT (CLB)

None

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

PA1 The notes associated with Specification 3.7.1, Condition C and Condition D, have been repositioned on the page in order to be consistent with the NUMARC Writer's Guide for Improved Technical Specifications.

PA2 The correct LCO reference has been included.

PA3 The brackets have been removed and the proper plant specific nomenclature has been provided.

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)

X1 The brackets have been removed and the 8 hour Completion Time included as justified in ITS 3.7.1, L2.

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.7 PLANT SYSTEMS

B 3.7.1 Residual Heat Removal Service Water (RHRSW) System

BASES

BACKGROUND

The RHRSW System is designed to provide cooling water for the Residual Heat Removal (RHR) System heat exchangers, required for a safe reactor shutdown following a Design Basis Accident (DBA) or transient. The RHRSW System is operated whenever the RHR heat exchangers are required to operate in the shutdown cooling mode or in the suppression pool cooling or spray mode of the RHR System.

The RHRSW System consists of two independent and redundant subsystems. Each subsystem is made up of a header, two [4000] gpm pumps, a suction source, valves, piping, heat exchanger, and associated instrumentation. Either of the two subsystems is capable of providing the required cooling capacity with one pump operating to maintain safe shutdown conditions. The two subsystems are separated from each other by normally closed motor operated cross tie valves, so that failure of one subsystem will not affect the OPERABILITY of the other subsystem. The RHRSW System is designed with sufficient redundancy so that no single active component failure can prevent it from achieving its design function. The RHRSW System is described in the FSAR, Section [9.2.7], Reference 1.

Cooling water is pumped by the RHRSW pumps from the [Altamaha River] through the tube side of the RHR heat exchangers, and discharges to the [circulating water flume]. A minimum flow line from the pump discharge to the intake structure prevents the pump from overheating when pumping against a closed discharge valve.

The system is initiated manually from the control room. If operating during a loss of coolant accident (LOCA), the system is automatically tripped to allow the diesel generators to automatically power only that equipment necessary to reflood the core. The system can be manually started any time 10 minutes after the LOCA, or manually started any time the LOCA signal is manually overridden or clears.

(continued)

BASES (continued)

APPLICABLE SAFETY ANALYSES

The RHRSW System removes heat from the suppression pool to limit the suppression pool temperature and primary containment pressure following a LOCA. This ensures that the primary containment can perform its function of limiting the release of radioactive materials to the environment following a LOCA. The ability of the RHRSW System to support long term cooling of the reactor or primary containment is discussed in the FSAR, Chapters [6] and [15] (Refs. 2 and 3, respectively). These analyses explicitly assume that the RHRSW System will provide adequate cooling support to the equipment required for safe shutdown. These analyses include the evaluation of the long term primary containment response after a design basis LOCA.

The safety analyses for long term cooling were performed for various combinations of RHR System failures. The worst case single failure that would affect the performance of the RHRSW System is any failure that would disable one subsystem of the RHRSW System. As discussed in the FSAR, Section [6.2.1.4.3] (Ref. 4) for these analyses, manual initiation of the OPERABLE RHRSW subsystem and the associated RHR System is assumed to occur [10] minutes after a DBA. The RHRSW flow assumed in the analyses is [4000] gpm per pump with two pumps operating in one loop. In this case, the maximum suppression chamber water temperature and pressure are [206.4]°F and [36.59] psig, respectively, well below the design temperature of [340]°F and maximum allowable pressure of [62] psig.

The RHRSW System satisfies Criterion 3 of the NRC Policy Statement.

LCO

Two RHRSW subsystems are required to be OPERABLE to provide the required redundancy to ensure that the system functions to remove post accident heat loads, assuming the worst case single active failure occurs coincident with the loss of offsite power.

An RHRSW subsystem is considered OPERABLE when:

a. Two pumps are OPERABLE; and

(continued)

BASES

(and discharging the water to the discharge structure) PA2

LCO (continued)

b. An OPERABLE flow path is capable of taking suction from the intake structure and transferring the water to the RHR heat exchangers at the assumed flow rate. Additionally, the RHRSW cross tie valves (which allow the two RHRSW loops to be connected) must be closed so that failure of one subsystem will not affect the OPERABILITY of the other subsystems.

An adequate suction source is not addressed in this LCO since the minimum net positive suction head (159] ft mean sea level in the pump well) is bounded by the [plant] service water pump requirements (LCO 3.7.2, "[Plant] Service Water ([PSW]) System and [Ultimate Heat Sink (UHS)]").

(The requirements of the ultimate heat sink are) PA2 (requirements of the ultimate heat sink are addressed) PA2 (emergency) (Emergency) PA3 DB3

APPLICABILITY

In MODES 1, 2, and 3, the RHRSW System is required to be OPERABLE to support the OPERABILITY of the RHR System for primary containment cooling (LCO 3.6.2.3, "Residual Heat Removal (RHR) Suppression Pool Cooling," and LCO 3.6.2.4, "Residual Heat Removal (RHR) Suppression Pool Spray") and decay heat removal (LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown"). The Applicability is therefore consistent with the requirements of these systems.

(Containment) PA4 (1.9) PA4 (7) PA4

In MODES 4 and 5, the OPERABILITY requirements of the RHRSW System are determined by the systems it supports.

(INSERT APP) PA5

ACTIONS

A.1

With one RHRSW pump inoperable, the inoperable pump must be restored to OPERABLE status within 30 days. With the unit (plant) PA1 in this condition, the remaining OPERABLE RHRSW pumps are adequate to perform the RHRSW heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced RHRSW capability. The 30 day Completion Time is based on the remaining RHRSW heat removal capability, including enhanced reliability afforded by manual cross connect capability, and the low probability of a DBA with concurrent worst case single failure. DB3

(continued)

INSERT APP

and therefore, the requirements are not the same for all facets of operation in MODES 4 and 5. Thus, the LCOs of the RHR Shutdown Cooling System (LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown," LCO 3.9.7, "Residual Heat Removal (RHR)—High Water Level," and LCO 3.9.8, "Residual Heat Removal (RHR)—Low Water Level"), which require portions of the RHRSW System to be OPERABLE, will govern RHRSW System operation in MODES 4 and 5

BASES

ACTIONS (continued)

B.1

With one RHRSW pump inoperable in each subsystem, if no additional failures occur in the RHRSW System, and the two OPERABLE pumps are aligned by opening the normally closed cross tie valves, then the remaining OPERABLE pumps and flow paths provide adequate heat removal capacity following a design basis LOCA. However, capability for this alignment is not assumed in long term containment response analysis and an additional single failure in the RHRSW System could reduce the system capacity below that assumed in the safety analysis. Therefore, continued operation is permitted only for a limited time. One inoperable pump is required to be restored to OPERABLE status within 7 days. The 7 day Completion Time for restoring one inoperable RHRSW pump to OPERABLE status is based on engineering judgment, considering the level of redundancy provided.

(e.g., inoperable flow path, or both pumps inoperable) PA2

and low probability of an event occurring requiring RHRSW during this time period PA7

DB3

C.1

Required Action C.1 is intended to handle the inoperability of one RHRSW subsystem for reasons other than Condition A. The Completion Time of 7 days is allowed to restore the RHRSW subsystem to OPERABLE status. With the unit in this condition, the remaining OPERABLE RHRSW subsystem is adequate to perform the RHRSW heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE RHRSW subsystem could result in loss of RHRSW function. The Completion Time is based on the redundant RHRSW capabilities afforded by the OPERABLE subsystem and the low probability of an event occurring requiring RHRSW during this period.

plant PA1

The Required Action is modified by a Note indicating that the applicable Conditions of LCO 3.4.9, be entered and Required Actions taken if the inoperable RHRSW subsystem results in inoperable RHR shutdown cooling. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

7 PA4

PA2 an

subsystem PA2

D.1

With both RHRSW subsystems inoperable for reasons other than Condition B (e.g., both subsystems with inoperable flow

(continued)

BASES

ACTIONS

D.1 (continued)

paths, or one subsystem with an inoperable pump and one subsystem with an inoperable flow path), the RHRSW System is not capable of performing its intended function. At least one subsystem must be restored to OPERABLE status within 8 hours. The 8 hour Completion Time for restoring one RHRSW subsystem to OPERABLE status, is based on the Completion Times provided for the RHR suppression pool cooling and spray functions.

The Required Action is modified by a Note indicating that the applicable Conditions of LCO 3.4.8, be entered and Required Actions taken if the inoperable RHRSW subsystem results in inoperable (RHR shutdown cooling). This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

E.1 and E.2

If the RHRSW subsystems cannot be not restored to OPERABLE status within the associated Completion Times, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

If any Required Action and associated Completion Time is not met

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

Verifying the correct alignment for each manual, power operated, and automatic valve in each RHRSW subsystem flow path provides assurance that the proper flow paths will exist for RHRSW operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves are verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position, and yet considered in the correct position, provided it can be realigned to its accident position. This is acceptable because the RHRSW System is a manually initiated system.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1 (continued)

This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

REFERENCES (PA1)

1. (U)FSAR, Section [9.2.1]. 7.3 (DB4)
2. (U)FSAR, [Chapter 6]. Section 4.8.
3. (U)FSAR, [Chapter 15]. Section 5.1. (DB4)
4. UFSAR, Chapter 14 (DB4)
5. (U)FSAR, Section [6.2.1.4.3]. 14.6.1.3.3 (PA1)
6. UFSAR, Section 6.19.3.5.1.1
7. 10 CFR 50.36 (c)(2)(ii) (X1)

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.7.1 - RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) SYSTEM

RETENTION OF EXISTING REQUIREMENT (CLB)

None

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

PA1 Changes have been made to reflect the plant specific nomenclature.

PA2 Minor wording changes have been made to the Bases for clarification.

PA3 The brackets have been removed and the proper ITS LCO title included.

PA4 The proper LCO number and title has been included.

PA5 The Applicability section of the Bases for Specification 3.7.1 has been revised to add clarification regarding Operability requirements for the RHRSW System during MODEs 4 and 5.

PA6 Editorial change made to be consistent with other places in the Bases.

PA7 Editorial change made for enhanced clarity and to be consistent with ITS 3.7.1 ACTION C Bases.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 The brackets have been removed and the proper plant specific value/requirement has been provided.

DB2 Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the plant specific design.

DB3 The words concerning the cross tie valves have been deleted since the JAFNPP design does not include this connection.

DB4 The brackets have been removed and the proper plant specific reference has been provided. The references have been renumbered, where applicable.

DB5 The bracketed maximum suppression chamber pressure and limit values are not included in the Applicable Safety Analysis since pressure is not directly influenced by RHRSW flow. (The maximum pressure is obtained during the short term analysis where RHRSW is not credited.)

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.7.1 - RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) SYSTEM

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 references 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: 3.7.1

Residual Heat Removal Service Water (RHRSW) System

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.7 PLANT SYSTEMS

3.7.1 Residual Heat Removal Service Water (RHRSW) System

LCO 3.7.1 Two RHRSW subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHRSW pump inoperable.	A.1 Restore RHRSW pump to OPERABLE status.	30 days
B. One RHRSW pump in each subsystem inoperable.	B.1 Restore one RHRSW pump to OPERABLE status.	7 days
C. One RHRSW subsystem inoperable for reasons other than Condition A.	------------NOTE------------ Enter applicable Conditions and Required Actions of LCO 3.4.7, "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown," for RHR shutdown cooling made inoperable by RHRSW System. ----------------------------	
	C.1 Restore RHRSW subsystem to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Both RHRSW subsystems inoperable for reasons other than Condition B.	-----------NOTE----------- Enter applicable Conditions and Required Actions of LCO 3.4.7, "Residual Heat Removal (RHR) Shutdown Cooling System - Hot Shutdown," for RHR shutdown cooling made inoperable by RHRSW System. -------------------------	
	D.1 Restore one RHRSW subsystem to OPERABLE status.	8 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	12 hours
	<u>AND</u>	
	E.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.1.1	Verify each RHRSW manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.	31 days

B 3.7 PLANT SYSTEMS

B 3.7.1 Residual Heat Removal Service Water (RHRSW) System

BASES

BACKGROUND

The RHRSW System is designed to provide cooling water for the Residual Heat Removal (RHR) System heat exchangers, required for a safe reactor shutdown following a Design Basis Accident (DBA) or transient. The RHRSW System is operated whenever the RHR heat exchangers are required to operate in the shutdown cooling mode or in the suppression pool cooling or spray mode of the RHR System.

The RHRSW System consists of two independent and redundant subsystems. Each subsystem is made up of a header, two 4000 gpm pumps, a suction source, valves, piping, heat exchanger, and associated instrumentation. Either of the two subsystems is capable of providing the required cooling capacity with two pumps operating to maintain safe shutdown conditions. The RHRSW System is designed with sufficient redundancy so that no single active component failure can prevent it from achieving its design function. The RHRSW System is described in the UFSAR, Section 9.7.3, Reference 1.

Cooling water is pumped by the RHRSW pumps from the intake structure through the tube side of the RHR heat exchangers, and discharges to the discharge structure via the Service Water System.

The system is initiated manually from the control room. If operating during a loss of coolant accident (LOCA), the system is automatically tripped to allow the diesel generators to automatically power only that equipment necessary to reflood the core. The system is assumed in the analysis to be manually started 10 minutes after the LOCA.

APPLICABLE SAFETY ANALYSES

The RHRSW System removes heat from the suppression pool via the RHR System to limit the suppression pool temperature and primary containment pressure following a LOCA. This ensures that the primary containment can perform its function of limiting the release of radioactive materials to the environment following a LOCA. The ability of the RHRSW

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

System to support long term cooling of the reactor or primary containment is discussed in the UFSAR, Sections 4.8, 5.1 and Chapter 14 (Refs. 2, 3 and 4, respectively). These analyses explicitly assume that the RHRSW System will provide adequate cooling support to the equipment required for safe shutdown. These analyses include the evaluation of the long term primary containment response after a design basis LOCA.

The safety analyses for long term cooling were performed for various combinations of RHR System failures. The worst case single failure that would affect the performance of the RHRSW System is any failure that would disable one subsystem of the RHRSW System. As discussed in the UFSAR, Section 14.6.1.3.3 (Ref. 5) for these analyses, manual initiation of the OPERABLE RHRSW subsystem and the associated RHR System is assumed to occur 10 minutes after a DBA. The RHRSW flow assumed in the analyses is 4000 gpm per pump with two pumps operating in one loop. In this case, the maximum suppression chamber water temperature is 209°F (Ref. 6) which is below the design temperature of 220°F.

The RHRSW System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii) (Ref. 7).

LCO

Two RHRSW subsystems are required to be OPERABLE to provide the required redundancy to ensure that the system functions to remove post accident heat loads, assuming the worst case single active failure occurs coincident with the loss of offsite power.

An RHRSW subsystem is considered OPERABLE when:

a. Two pumps are OPERABLE; and

b. An OPERABLE flow path is capable of taking suction from the intake structure and transferring the water to the RHR heat exchangers at the assumed flow rate and discharging the water to the discharge structure.

The requirements of the ultimate heat sink are not addressed in this LCO since the requirements of the ultimate heat sink are addressed by the emergency service water pump

(continued)

BASES

LCO (continued)	requirements (LCO 3.7.2, "Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)").
APPLICABILITY	In MODES 1, 2, and 3, the RHRSW System is required to be OPERABLE to support the OPERABILITY of the RHR System for primary containment cooling (LCO 3.6.2.3, "Residual Heat Removal (RHR) Suppression Pool Cooling," and LCO 3.6.1.9, "Residual Heat Removal (RHR) Containment Spray") and decay heat removal (LCO 3.4.7, "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown"). The Applicability is therefore consistent with the requirements of these systems. In MODES 4 and 5, the OPERABILITY requirements of the RHRSW System are determined by the systems it supports and therefore, the requirements are not the same for all facets of operation in MODES 4 and 5. Thus, the LCOs of the RHR Shutdown Cooling System (LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown," LCO 3.9.7, "Residual Heat Removal (RHR)—High Water Level," and LCO 3.9.8, "Residual Heat Removal (RHR)—Low Water Level"), which require portions of the RHRSW System to be OPERABLE, will govern RHRSW System operation in MODES 4 and 5.
ACTIONS	<u>A.1</u> With one RHRSW pump inoperable, the inoperable pump must be restored to OPERABLE status within 30 days. With the plant in this condition, the remaining OPERABLE RHRSW pumps are adequate to perform the RHRSW heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced RHRSW capability. The 30 day Completion Time is based on the remaining RHRSW heat removal capability, and the low probability of a DBA with concurrent worst case single failure. <u>B.1</u> With one RHRSW pump inoperable in each subsystem, if no additional failures occur in the RHRSW System, then the

(continued)

BASES

ACTIONS

B.1 (continued)

remaining OPERABLE pumps and flow paths provide adequate heat removal capacity following a design basis LOCA. However, capability for this alignment is not assumed in long term containment response analysis and an additional single failure in the RHRSW System could reduce the system capacity below that assumed in the safety analysis. Therefore, continued operation is permitted only for a limited time. One inoperable pump is required to be restored to OPERABLE status within 7 days. The 7 day Completion Time for restoring one inoperable RHRSW pump to OPERABLE status is based on engineering judgment, considering the level of redundancy provided and low probability of an event occurring requiring RHRSW during this time period.

C.1

Required Action C.1 is intended to handle the inoperability of one RHRSW subsystem for reasons other than Condition A (e.g., inoperable flow path, or both pumps inoperable). The Completion Time of 7 days is allowed to restore the RHRSW subsystem to OPERABLE status. With the plant in this condition, the remaining OPERABLE RHRSW subsystem is adequate to perform the RHRSW heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE RHRSW subsystem could result in loss of RHRSW function. The Completion Time is based on the redundant RHRSW capabilities afforded by the OPERABLE subsystem and the low probability of an event occurring requiring RHRSW during this period.

The Required Action is modified by a Note indicating that the applicable Conditions of LCO 3.4.7, be entered and Required Actions taken if an inoperable RHRSW subsystem results in an inoperable RHR shutdown cooling subsystem. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

D.1

With both RHRSW subsystems inoperable for reasons other than Condition B (e.g., both subsystems with inoperable flow

(continued)

BASES

ACTIONS

D.1 (continued)

paths, or one subsystem with an inoperable pump and one subsystem with an inoperable flow path), the RHRSW System is not capable of performing its intended function. At least one subsystem must be restored to OPERABLE status within 8 hours. The 8 hour Completion Time for restoring one RHRSW subsystem to OPERABLE status, is based on the Completion Times provided for the RHR suppression pool cooling and spray functions.

The Required Action is modified by a Note indicating that the applicable Conditions of LCO 3.4.7, be entered and Required Actions taken if an inoperable RHRSW subsystem results in an inoperable RHR shutdown cooling subsystem. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

E.1 and E.2

If any Required Action and associated Completion Time is not met, the plant must be placed in a MODE in which the LCO does not apply. To achieve this status, the plant must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

Verifying the correct alignment for each manual, power operated, and automatic valve in each RHRSW subsystem flow path provides assurance that the proper flow paths will exist for RHRSW operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves are verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position, and yet considered in the correct position, provided it can be realigned to its accident position. This is acceptable because the RHRSW System is a manually initiated system.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1 (continued)

This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

REFERENCES

1. UFSAR, Section 9.7.3.
2. UFSAR, Section 4.8.
3. UFSAR, Section 5.1.
4. UFSAR, Chapter 14.
5. UFSAR, Section 14.6.1.3.3.
6. UFSAR, Section 16.19.3.5.1.1.
7. 10 CFR 50.36(c)(2)(ii).

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

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: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Specification 3.7.2

A1

JAFNPP

3.11 (cont'd)

[3.7.2] D. Emergency Service Water System (and Ultimate Heat Sink)

[LCO 3.7.2]

1. To ensure adequate equipment and area cooling, both (Two) ESW systems shall be operable when the requirements of specification 3.5.A and 3.5.B must be satisfied, except as specified below in specification 3.11.D.2.

[Applicability] MODES 1, 2, and 3

and UHS M2

add Note A7

4.11 (Cont'd)

[3.7.2] D. Emergency Service Water System

1. Surveillance of the ESW system shall be performed as follows: L1 "actual or"

Item	Frequency
[SR 3.7.2.7] a. Simulated Automatic Actuation Test	Once every 24 months
b. Flow Rate Test - Each ESW pump shall deliver at least 1500 gpm to its respective loop. The loop. The pump total developed head shall be greater than or equal to the corresponding point on the pump curve, reduced by a maximum of 7%, for the measured flow. (LA1)	In Accordance with the Inservice Testing Program
[SR 3.7.2.4] c. Verify that each valve (manual, power operated, or automatic) in the system flowpath that is not locked, sealed or otherwise secured in position, is in the correct position.	Once per 31 Days
d. Motor Operated Valves (LA1)	In Accordance with the Inservice Testing Program

Specification 3.7.2 (A1)

3.11 (cont'd)

4.11 (cont'd)

(A3) moved to ITS 3.3.7.3

e.	ESW instrumentation check	Once/day
	ESW instrument channel calibration	Once/3 months
f.	Logic System Functional Test	Once every 24 months

add Required Action A.1 Note (A2)

[ACTION A] 2. From and after the time that one Emergency Service Water System is made or found to be inoperable for any reason continued reactor operation is permissible for a period not to exceed 7 days, provided that:

- the operable Emergency Diesel Generator System is demonstrated to be operable immediately and daily thereafter; and, (L4)
- all Emergency Diesel Generator System emergency loads are verified operable immediately and daily thereafter. (L2)

[ACTION C] 3. If specification 3.11.D.2 cannot be met the reactor shall be placed in the cold condition within 24 hours. (36) (L3)

be in MODE 3 within 12 hours (M1)

(L3) (M1) add ACTION C second part

add ACTION C third part (M2)

2. ESW will not be supplied to RBCLC system during testing. (LA2)

add SR 3.7.2.1 SR 3.7.2.2 (M2)

3. Not Used

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Specification 3.7.2

A1

3.11 (cont'd)

E. Intake Deicing Heaters

Intake heaters are required to be operable when intake water temperature is less than or equal to 37°F. A minimum of 18 out of 88 heaters are required to be operable to maintain the required flow for the ESW and RHRSW Systems.

1. If specification 3.11.E above cannot be met the reactor shall be placed in a cold condition within 24 hours.

[Note to SRs 3.7.2.4, 3.7.2.5, 3.7.2.6]

[ACTION C]

add Applicability (A5)

A4 LA3

MODE 3 in 12 hours (M1)

36 (L3)

add ACTION B (M3)

4.11 (cont'd)

E. Intake Deicing Heaters

1. The six heater feeder ammeters shall be checked weekly whenever the intake water temperature is less than or equal to 37°F. [SR 3.7.2.3]

2. The individual heaters shall be monitored once/6 months for rated heater current or as required by large deviations in the feeder checks in 4.11.E.1 above. [SR 3.7.2.5]

3. Resistance to ground shall be checked once/year. [SR 3.7.2.6]

[Note to SR 3.7.2.3]

A4 A6 required A6 required LA5 The required A6 power A8

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JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.7.2 - EMERGENCY SERVICE WATER (ESW) SYSTEM AND
ULTIMATE HEAT SINK (UHS)

ADMINISTRATIVE CHANGES

A1 In the conversion of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Current Technical Specifications (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 CTS 3.11.D.2 allows 7 days of operation with one Emergency Service Water System inoperable. A Note is proposed to be added to CTS 3.11.D.2 (ITS 3.7.2 Required Action A.1) which would require the applicable Conditions and Required Actions of ITS 3.8.1, "AC Sources – Operating," for the Emergency Diesel Generator (EDG) subsystem made inoperable by ESW. This Note is an exception to proposed LCO 3.0.6 which ensures proper ACTIONS are taken for an inoperable EDG subsystem. This Note is consistent with the current requirements in the same CTS requirement which only allows 7 days of operation if the operable Emergency Diesel Generator System is demonstrated to be operable immediately and daily thereafter. If the other Emergency Diesel Generator System was found to be inoperable CTS 3.11.D.3 must be entered and the plant must be brought to a cold condition. This change is considered administrative since the Note ensures that the appropriate actions of LCO 3.8.1 are taken. Changes to testing requirements in CTS 3.11.D.2 are discussed in L2 and L4.

A3 The ESW instrumentation surveillance requirements specified in CTS 4.11.D.1.e and 4.11.D.1.f have been moved to ITS 3.3.7.3, "Emergency Service Water (ESW) System Instrumentation". Although an instrumentation specification does not currently exist in NUREG-1433, Revision 1 for the ESW System Instrumentation, the JAFNPP requires the proper function of the ESW lockout matrix to ensure safe shutdown loads are automatically supplied during a loss of preferred power. Since the ESW instrumentation includes redundant channels, JAFNPP feels that this change is acceptable. Any additional changes to the current requirements concerning ESW System instrumentation is addressed in the Discussion of Changes for ITS 3.3.7.3, therefore this change is considered administrative.

A4 The requirements for intake deicing heaters in CTS 3.11.E and 4.11.E have been included with the requirements of Emergency Service Water (ESW) and the Ultimate Heat Sink (UHS). Since the intake deicing heaters help to ensure adequate flow to the ESW and Residual Heat Removal System this change in format is considered administrative.

ADMINISTRATIVE CHANGES

A4 (continued)

The deicing heaters are considered to be part of the UHS. This change is consistent with the format of NUREG-1433, Revision 1.

A5 CTS 3.11.E requires the intake deicing heaters to be Operable when intake water temperature is less than or equal to 37°F. When these heaters are inoperable the default action is to be in cold conditions (CTS 3.11.E). In ITS 3.7.1, the Applicability of the deicing heaters is MODE 1, 2 and 3 consistent with the requirements of the Emergency Service Water (ESW) System. A Note has been added to the applicable surveillances related to the heaters (SR 3.7.2.3, SR 3.7.2.5 and SR 3.7.2.6) that these SRs are not required to be met at lake temperatures > 37°F. Since the Applicability of when the heaters are required to be Operable is consistent with the CTS, this change is considered administrative.

A6 CTS 4.11.E.1 requires the weekly verification of the six heater feeder ammeters. ITS SR 3.7.2.3 requires the verification of the "required" deicing heater feeder current for each division of deicing heaters. Since CTS 3.11.E only requires 18 out of 88 heaters to be OPERABLE, there is no reason to require the measurement of all heater feeder ammeters (6 per design) since the CTS LCO can be met with only one set of heaters (Division 1 or 2) in operation. A description of the method to satisfy the requirement is included in the Bases for SR 3.7.2.5. In addition, the word "required" has been added to CTS 4.11.E.1, 4.11.E.2 and 4.11.E.3 (SR 3.7.2.3, SR 3.7.2.5 and SR 3.7.2.6, respectively). Since this change simply provides consistency between the requirements in the LCO (CTS 3.11.E) and the CTS Surveillance, this change is considered administrative. In addition, a more restrictive change (M3) adds the requirement that both divisions of deicing heaters are required.

A7 A Note (Note to ITS SR 3.7.2.4) has been added to CTS 4.11.D.1.c (the valve alignment verification Surveillance) which clarifies that the isolation of flow to individual components does not render ESW System inoperable. The isolation of individual components does not place the ESW System in an inoperable state. The ESW System is still capable of providing cooling water to OPERABLE safety related components, however the OPERABILITY of these individual components which have been isolated must be considered. The OPERABILITY of each individual component of the ESW will be accounted for within the OPERABILITY requirements of the associated supported system Specification within the ITS. This is consistent with current practice and is based on the definition of

ADMINISTRATIVE CHANGES

A7 (continued)

Operable in CTS definition 1.0.J or in the ITS definition of OPERABLE - OPERABILITY in ITS Section 1.0 which require cooling water to be available for a system, subsystem, division, component, or device to be considered OPERABLE to perform its specified safety function. Since this Note is only added for clarity, this change is considered administrative. This change is consistent with NUREG-1433, Revision 1.

A8 The requirements in CTS 4.11.E.2 to monitor the individual heater current once every 6 months has been changed to require the verification of the required deicing heater power (ITS SR 3.7.2.5). The current is measured more frequently in CTS 4.11.E.1. This Surveillance ensures that the required deicing heaters are operating as designed ensuring the appropriate power is produced in each required heater. Since this change is consistent with current practice, this change is considered administrative.

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.11.D.3 requires the reactor to be placed in a cold condition within 24 hours if the requirements of CTS 3.11.D.2 (one ESW subsystem inoperable) can not be met. CTS 3.11.E.1 requires the same actions when the required deicing heaters are found to be inoperable (see M3 for inclusion of redundant deicing heater divisions). CTS 3.11.D.1 requires both ESW subsystems to be Operable, except as allowed by CTS 3.11.D.2. CTS 3.11.D.2 addresses the condition with one inoperable ESW subsystem. Therefore, With two inoperable ESW subsystems entry into CTS 3.0.C is required and the plant must be in COLD SHUTDOWN within 24 hours. In ITS 3.7.2, all default actions for the ESW System and ultimate heat sink (UHS) are covered in ACTION C for clarity consistent with the format of NUREG-1433, Revision 1. An additional ACTION has been added to allow time to restore a division of inoperable deicing heaters to Operable status (ACTION B), however this change is addressed in M3. The inoperability of two ESW subsystems is addressed in the second part of Condition B. If the Required Action and associated Completion Time of ACTION A (for one ESW subsystem) or ACTION B (for one division of deicing heaters) is not met entry into the first part of Condition B is required. Finally, if the ultimate heat sink (UHS) is inoperable for reasons other than one division of deicing heaters, entry into the third part to Condition C is required. However this requirement was added in accordance with M2.

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 (continued)

A new action has been added (ITS 3.7.2 Required Action C.1), which requires the plant to be in MODE 3 within 12 hours. In addition, ITS 3.7.2 Required Action C.2 requires the plant to be in MODE 4 in 36 hours (L3). This change is more restrictive because it provides an additional requirement to place the plant in MODE 3 in 12 hours under the conditions specified above. The allowed Completion Times in Required Action C.1 and C.2 are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. However, the 12 hour Completion Time ensures timely action is taken to place the plant in a shutdown condition (MODE 3). The consequences of any design bases event is significantly reduced when plant is shutdown. This change is consistent with NUREG-1433, Revision 1.

M2 This proposed change adds two Surveillance Requirements to CTS 4.11.D to verify the water level in each ESW pump screenwell (ensuring that adequate level for ESW pump submergence exists) and the Ultimate Heat Sink temperature (ensuring the temperature of water to the required coolers is consistent with analyses). In the ITS these surveillances are SR 3.7.2.1 and SR 3.7.2.2, respectively. The addition of added SRs constitutes a more restrictive change but is necessary to ensure proper parameters of the Ultimate Heat Sink (UHS). Along with this change the requirement that the UHS shall be Operable has been added to ITS LCO 3.7.2, and the third part of ACTION B has been added to address the inoperability of the UHS. This change is consistent with NUREG-1433, Revision 1.

M3 CTS 3.11.E requires a minimum of 18 out of 88 heaters to be operable to maintain required flow for the ESW and RHRSW Systems. This requirement is not explicit whether heaters in both divisions are required. This change adds the requirement that 18 heaters associated with each division are required to be Operable (The details have been relocated to the Bases in accordance with LA3). This requirement has been added to ensure there will be sufficient RHRSW and ESW flow during a design bases accident assuming a single active failure of one electrical division. The requirement is incorporated in ITS SR 3.7.2.4, SR 3.7.2.5 and 3.7.2.6 consistent with the current requirements in CTS 4.11.E.1, 2 and 3, respectively however the Surveillance are explicit and require both divisions of the required heaters. In addition, ACTION B has been added to cover the condition when one division of required deicing heaters inoperable. The Completion Time of 7 days has been provided consistent with the current allowances for one inoperable ESW subsystem. With both

TECHNICAL CHANGES - MORE RESTRICTIVE

M3 (continued)

required divisions inoperable ACTION C must be entered (UHS inoperable for reasons other than Condition B.) and a plant shutdown is required.

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The inservice testing requirements in CTS 4.11.D.1.b and 4.11.D.1.d for the ESW system are proposed to be relocated to the IST program. This testing is required to ensure the ESW pumps and valves are Operable in order to perform their intended function. However, the IST Program, required by 10 CFR 50.55a, provides requirements for the testing of all ASME Code Class 1, 2, and 3 pumps and valves in accordance with Section XI of the ASME Code. The IST Program and implementing procedures ensure compliance with 10 CFR 50.55a, which is required by the JAFNPP Operating License. These controls are adequate to ensure the required testing to verify Operability is performed. Therefore, these requirements are not required to be included in the ITS to provide adequate protection of the public health and safety. Changes to the relocated requirements in the IST Program will be controlled by the provisions of 10 CFR 50.59.

LA2 The details in CTS 4.11.D.2 on how to perform Emergency Service Water(ESW) surveillances (that ESW will not be supplied to RBCLC System during testing) is proposed to be relocated to the Bases. This requirement is specified to minimize any potential contamination to the relatively pure RBCLC water with raw lake water. The requirements in ITS LCO 3.7.2 that the ESW System shall be Operable, the ACTIONS, and Surveillance Requirements will ensure that ESW remains Operable. The proposed Bases provides the details that ESW will not be supplied to RBCLC System during the performance of SR 3.7.2.7 (simulated automatic actuation test) since this is the only test with a potential of supplying water to the RBCLC System. The RBCLC loads cooled by ESW are not required for safe shutdown therefore the opening of motor operated valves 15MOV-175A and 175B are not required to satisfy the requirements of this test. Therefore, this detail on how to perform the surveillance is not required to be included in the ITS to provide adequate protection of the public health and safety. Changes to the relocated requirements in the Bases will be controlled by the provisions of the proposed Bases Control Program in Chapter 5 of the Technical Specifications.

LA3 The details in CTS 3.11.E that a minimum of 18 out of 88 heaters are required to be Operable to maintain the required flow for the ESW and RHRSW Systems is proposed to be relocated to the Bases. The

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA3 (continued)

requirements in ITS LCO 3.7.2, that the Ultimate Heat Sink shall be Operable and the current (4.11.E.1, 4.11.E.2, and 4.11.E.3) and proposed (SR 3.7.2.3, 3.7.2.5, and 3.7.2.6) Surveillance Requirements will ensure that required heaters are OPERABLE. In addition, a more restrictive change (M3) adds the requirement that both divisions of deicing heaters are required. Therefore, these details are not required to be included in the ITS to provide protection of the public health and safety. Changes to the Bases will be controlled by the provisions of the proposed Bases Control Program described in Chapter 5 of the Technical Specifications.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 4.11.D.1.a requires a simulated automatic actuation test of the Emergency Service Water System. ITS SR 3.7.2.7 will require the verification that each ESW subsystem actuates on an actual or simulated initiation signal. Existing requirements for actuation testing of CTS 4.11.D.1.a stipulates a simulated automatic actuation test shall be performed. The phrase "actual or," in reference to the automatic initiation signal, has been added to the Surveillance Requirements for verifying that each ESW subsystem actuates on an automatic initiation signal. This allows satisfactory automatic system initiations to be used to fulfill the Surveillance Requirements. Operability is adequately demonstrated in either case since the ESW subsystem itself can not discriminate between "actual" or "simulated" signals.

L2 CTS 3.11.D.2 requires the verification that the Emergency Diesel Generator System emergency loads are Operable immediately and daily thereafter when one Emergency Service Water subsystem is found to be inoperable. ITS 3.7.2 does not include this explicit requirement. These verifications are an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. The Technical Specifications and ITS 5.5.12, "Safety Function Determination Program" (see Discussion of Changes in ITS Section 5.0) will require a continuous knowledge of all plant equipment. Plant and equipment status is monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 (continued)

becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the Operable Emergency Diesel Generator System emergency loads is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions. In addition, the Safety Function Determination Program will require the necessary actions to be taken when a loss of function exists, therefore this change is considered acceptable.

L3 CTS 3.11.D.3 requires the reactor to be placed in a cold condition within 24 hours if the requirements of CTS 3.11.D.2 (one ESW subsystem inoperable) can not be met. CTS 3.11.E.1 requires the same actions when the required deicing heaters are found to be inoperable (see M3 for inclusion of redundant deicing heater divisions). CTS 3.11.D.1 requires both ESW subsystems to be Operable, except as allowed by CTS 3.11.D.2. CTS 3.11.D.2 addresses the condition with one inoperable ESW subsystem. Therefore, with two inoperable ESW subsystems entry into CTS 3.0.C is required and the plant must be in COLD SHUTDOWN within 24 hours. In ITS 3.7.2, all default actions for the ESW System and the ultimate heat sink (UHS) are covered in ACTION C for clarity consistent with the format of NUREG-1433, Revision 1. An additional ACTION has been added to allow time to restore a division of inoperable deicing heaters to Operable status (ACTION B), however this change is addressed in M3. The inoperability of two ESW subsystems is addressed in the second part of Condition B. If the Required Action and associated Completion Time of ACTION A (for one ESW subsystem) or ACTION B (for one division of deicing heaters) is not met entry into the first part of Condition B is required. Finally, if the ultimate heat sink (UHS) is inoperable for reasons other than one division of deicing heaters, entry into the third part to Condition C is required. However this requirement was added in accordance with M2.

The proposed requirement, LCO 3.7.2, Required Action C.2, extends the time allowed for the plant to be in MODE 4, from 24 hours to 36 hours under the conditions specified above. However, ITS 3.7.2 Required Action C.1 requires the plant to be in MODE 3 in 12 hours (M1). This change is less restrictive because it extends the time for the plant to be in MODE 4 from 24 hours to 36. The allowed Completion Times in Required Actions C.1 and C.2 are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. The consequences of an accident are not significantly increased because

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 (continued)

- ITS 3.7.2, Required Action C.1 will require the plant be placed in MODE 3 within 12 hours. This change reduces the time the reactor would be allowed to continue to operate under the conditions specified above. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cooldown is already in progress. This change is consistent with NUREG-1433, Revision 1.

L4 CTS 3.11.D.2 requires the operable Emergency Diesel Generator System to be demonstrated to be operable immediately and daily thereafter when it is determined that one Emergency Service Water subsystem is inoperable. The proposed change deletes the explicit requirement to demonstrate the Operability of the Emergency Diesel Generator System (EDG) immediately and daily thereafter. As indicated in A2 a Note has been added which will require immediate entry into LCO 3.8.1 for an EDG subsystem made inoperable by ESW. ITS 3.8.1 provides a Completion Time of 24 hours for ITS 3.8.1 Required Action B.3.1, to determine the Operable EDG subsystem is not inoperable due to common cause failure or ITS 3.8.1 Required Action B.3.2 will require a performance of SR 3.8.1.2 for the Operable EDG subsystem. This change provides an additional time to determine that the inoperabilities are not due to common cause failure or to demonstrate OPERABLE EDG subsystem availability. The 24 hour Completion Time, in accordance with Generic Letter 84-15, is reasonable time to confirm that the OPERABLE EDG subsystem is not affected by the same problem as the inoperable EDG subsystem based on the low probability of an event during the additional time period. If the cause of the inoperable EDG subsystem cannot be confirmed not to exist on the OPERABLE EDG subsystem, then performance of ITS SR 3.8.1.2 is required to provide assurance of continued OPERABILITY of the remaining EDG subsystem. The requirement to demonstrate the Operability of the remaining OPERABLE EDG subsystem, thereafter is not necessary since the normal EDG Surveillances in proposed ITS 3.8.1 are sufficient to ensure the remaining EDG subsystem is Operable. This change is consistent with Generic Letter 84-15 and NUREG-1433, Revision 1 and is considered acceptable.

L5 The requirement in CTS 4.11.E.2 to monitor individual heater current whenever large deviations are identified in the feeder checks in CTS 4.11.E.1 has been deleted. The requirement in CTS 4.11.E.1 (ITS SR 3.7.2.4) to verify the deicing heater feeder current is within limits (for each division of deicing heaters (M3)) and the requirement in CTS 4.11.E.2 (ITS SR 3.7.2.5) to verify the required deicing heater power is within limits (for each division of deicing heaters (M3)) is sufficient to ensure that the required number of heaters are Operable. The current requirement in CTS 4.11.E.2 to monitor individual heater current

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L5 (continued)

whenever large deviations are identified in the feeder current checks is necessary to identify which heater circuit is open. However, as long as the overall current is within limits (> 90 amps) at least 18 heaters will be Operable and the Limiting Condition for Operation is met. Therefore, the proposed Surveillances are sufficient to ensure the minimum number of heaters are Operable.

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.7.2 - EMERGENCY SERVICE WATER (ESW) SYSTEM AND
ULTIMATE HEAT SINK (UHS)

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?

   The phrase "actual or," in reference to the automatic initiation signal, has been added to the system functional test surveillance test description. This does not impose a requirement to create an "actual" signal, nor does it eliminate any restriction on producing an "actual" signal. This change will allow the plant to take credit for spurious or real actuations as long as the surveillance requirements are satisfied. The proposed change does not affect the procedures governing plant operations and therefore does not affect the probability of creating these signals; it simply would allow such a signal to be credited when evaluating the acceptance criteria for the system functional test requirements. Therefore, the change does not involve a significant increase in the probability of an accident previously evaluated. Since the method of initiation will not affect the acceptance criteria of the system functional test, the change does not involve a significant increase in the 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 possibility of a new or different kind of accident from any accident previously evaluated is not created because the proposed change does not introduce a new mode of plant operation and does not involve physical modification to the plant. The change merely allows the plant to take credit for spurious or real actuations as long as the actuation satisfies the surveillance requirement.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

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

   Use of an actual signal instead of the existing requirement, which limits use to a simulated signal, will not affect the performance or acceptance criteria of the surveillance test. Operability is adequately demonstrated in either case since the system response will be the same for both an "actual" or "simulated" signal. Therefore, the change does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L2 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?

   The explicit requirement to verify the Emergency Diesel Generator (EDG) System emergency loads are Operable immediately and daily thereafter when one Emergency Service Water subsystem is found to be inoperable has been deleted. These verifications are an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. Therefore, this change does not significantly increase the frequency of such accidents. The Technical Specifications and the ITS 5.5.12 "Safety Function Determination Program" requires a continuous knowledge of all plant equipment. Plant and equipment status is monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the other Operable EDG emergency loads is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions. The status of plant and equipment will continue to be monitored to assure the potential consequences are not significantly increased. In addition, the Safety Function Determination Program will require the necessary actions to be taken when a loss of function exists. Therefore, this change does not significantly increase the consequences of any previously analyzed accident.

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

   This proposed change deletes the requirements to periodically verify the Operability of the Emergency Diesel Generator System emergency loads immediately and daily thereafter when one Emergency Service Water

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

2. (continued)

subsystem is inoperable, but does not change the practice of continuously monitoring plant and equipment status. The status of the plant and equipment will continue to be monitored to assure the possibility for a new or different kind of accident are not created. Therefore, this change does not create the possibility of a new or different kind of accident from any previously analyzed accident.

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

These verifications of the status of equipment Operability is an implicit part of using Technical Specifications and determining the appropriate Conditions to enter and Actions to take in the event of inoperability of Technical Specification equipment. Plant and equipment status is monitored by control room personnel. The results of this monitoring process are documented in records/logs maintained by control room personnel. The continuous monitoring process includes re-evaluating the status of compliance with Technical Specification requirements when Technical Specification equipment becomes inoperable using the control room records/logs as aids. Therefore, the explicit requirement to periodically verify the Operability of the loads associated with the Operable Emergency Diesel Generator is considered to be unnecessary for ensuring compliance with the applicable Technical Specification actions. The status of plant and equipment will continue to be monitored to assure appropriate actions are taken in the event of equipment inoperabilities in accordance with the proposed Safety Function Determination Program added in Section 5.0 of the ITS. Therefore, this change does not involve a significant reduction in the margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.7.2 - EMERGENCY SERVICE WATER (ESW) SYSTEM AND ULTIMATE HEAT SINK (UHS)

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L3 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?

   The proposed change does not increase the probability of an accident because the change extends the time to Cold Shutdown from 24 hours to 36 hours. Shutdown Completion Times are not assumed in the initiation of any analyzed event. The change will not allow continuous operation with inoperable ESW subsystems or the UHS including the deicing heaters. The consequences of an accident are not increased because ITS 3.7.2 Required Action C.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action and Completion Time are not met, two ESW subsystems are found inoperable, or with the UHS inoperable. This change reduces the time the reactor would be allowed to continue to operate once the condition is identified. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cooldown is already in progress. In addition, the consequences of an event occurring during the proposed shutdown Completion Time are the same as the consequences of an event occurring during the existing shutdown Completion Time. Therefore, the change does not involve a significant increase in the probability or consequences of an event 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 will not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, modified, tested, or inspected. The change increases the time allowed to Cold Shutdown from 24 hours to 36 hours. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L3 CHANGE

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

The change extends the time allowed to Cold Shutdown from 24 hours to 36 hours. There is no reduction in the margin of safety because ITS 3.7.2 Required Action C.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action and Completion Time are not met, two ESW subsystems are found inoperable, or the UHS is inoperable. This concurrent change reduces the time the reactor would be allowed to continue to operate once the condition is identified. The consequences of a LOCA are significantly mitigated when the reactor is shutdown and a controlled cooldown is already in progress. In addition, this change provides the benefit of a reduced potential for a plant event that could challenge safety systems by providing additional time to reduce pressure in a controlled and orderly manner. Therefore, this change does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L4 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?

   The proposed change deletes the explicit requirement to demonstrate the Operability of the Operable Emergency Diesel Generator (EDG) System immediately and daily thereafter when an ESW subsystem is found to be inoperable. As indicated in A2 a Note has been added which will require immediate entry into LCO 3.8.1 for EDGs made inoperable by ESW. ITS 3.8.1 provides a Completion Time of 24 hours for ITS 3.8.1 Required Action B.3.1, to determine the Operable EDG subsystem is not inoperable due to common cause failure or ITS 3.8.1 Required Action B.3.2 will require a performance of SR 3.8.1.2 for the Operable EDG subsystem. This change provides an additional time to determine that the inoperabilities are not due to common cause failure or to demonstrate OPERABLE EDG subsystem availability. The 24 hour Completion Time, in accordance with Generic Letter 84-15, is reasonable time to confirm that the OPERABLE EDGs are not affected by the same problem as the inoperable EDG based on the low probability of an event during the additional time period. If the cause of the inoperable EDG cannot be confirmed not to exist on the OPERABLE EDGs, then performance of ITS SR 3.8.1.2 is required to provide assurance of continued OPERABILITY of those EDGs. This change is consistent with Generic Letter 84-15 and NUREG-1433, Revision 1 and is considered acceptable. The EDGs are not assumed to be an initiator of any analyzed event. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated. As stated in NRC Generic Letter 87-09, "It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate the systems or components in fact are operable." Therefore, reliance on the specified surveillance intervals does not result in a reduced level of confidence concerning the equipment availability. The proposed Frequency of 24 hours is in accordance with Generic Letter 84-15 for EDG inoperabilities and therefore is appropriate for the subject inoperability. Therefore this change does not increased the probability

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L4 CHANGE

1. (continued)

   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 alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change deletes the explicit requirement to demonstrate the Operability of the Operable Emergency Diesel Generator (EDG) System immediately and daily thereafter when an ESW subsystem is found to be inoperable. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

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

   The proposed change deletes the explicit requirement to demonstrate the Operability of the Operable Emergency Diesel Generator (EDG) System immediately and daily thereafter when an ESW subsystem is found to be inoperable. As indicated in A2 a Note has been added which will require immediate entry into LCO 3.8.1 for EDGs made inoperable by ESW. ITS 3.8.1 provides a Completion Time of 24 hours for ITS 3.8.1 Required Action B.3.1, to determine the Operable EDG subsystem is not inoperable due to common cause failure or ITS 3.8.1 Required Action B.3.2 will require a performance of SR 3.8.1.2 for the Operable EDG subsystem. This change provides an additional time to determine that the inoperabilities are not due to common cause failure or to demonstrate OPERABLE EDG subsystem availability. The 24 hour Completion Time, in accordance with Generic Letter 84-15, is reasonable time to confirm that the OPERABLE EDGs are not affected by the same problem as the inoperable EDG based on the low probability of an event during the additional time period. If the cause of the inoperable EDG cannot be confirmed not to exist on the OPERABLE EDGs, then performance of ITS SR 3.8.1.2 is required to provide assurance of continued OPERABILITY of those EDGs. This change is consistent with Generic Letter 84-15 and NUREG-1433, Revision 1 and is considered acceptable. As stated in NRC Generic Letter 87-09, "It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate the systems or components in fact are

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L4 CHANGE

3. (continued)

operable." Therefore, reliance on the specified surveillance intervals does not result in a reduced level of confidence concerning the equipment availability. The proposed Frequency of 24 hours is in accordance with Generic Letter 84-15 for EDG inoperabilities and therefore is appropriate for the subject inoperability. The requirements will still assure adequate AC electrical power is available to operate the minimum required equipment. Thus, this change will not result in a common cause failure of the other EDGs or performing proposed SR 3.8.1.2 does not involve a significant reduction in a margin of safety.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L5 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?

   The proposed change deletes the explicit requirement to monitor individual deicing heater current whenever large deviations are identified in the feeder current checks. The deicing heaters are not assumed in the initiation of any accident. Therefore, the deletion of this test will not significantly increase the probability of an accident previously evaluated. The proposed Surveillances are sufficient to ensure the minimum number of heaters are Operable. The requirement in CTS 4.11.E.1 (ITS SR 3.7.2.4) to verify the deicing heater feeder current is within limits (for each division of deicing heaters (M3)) and the requirement in CTS 4.11.E.2 (ITS SR 3.7.2.5) to verify the required deicing heater power is within limits (for each division of deicing heaters (M3)) is sufficient to ensure that the required number of heaters are Operable. The current requirement in CTS 4.11.E.2 to monitor individual heater current whenever large deviations are identified in the feeder current checks is necessary to identify which heater circuit is open. However, as long as the overall current is within limits (> 90 amps) at least 18 heaters will be Operable and the Limiting Condition for Operation is met. Therefore, the consequences of an accident will be bounded by the existing analyses. Therefore, this change does not increase 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 alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change deletes the explicit requirement to monitor individual heater current whenever large deviations are identified in the feeder current checks. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

L5 CHANGE

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

The proposed change deletes the explicit requirement to monitor individual heater current whenever large deviations are identified in the feeder current checks. The proposed Surveillances will ensure the minimum required number of heaters remain Operable. The requirement in CTS 4.11.E.1 (ITS SR 3.7.2.4) to verify the deicing heater feeder current is within limits (for each division of deicing heaters (M3)) and the requirement in CTS 4.11.E.2 (ITS SR 3.7.2.5) to verify the required deicing heater power is within limits (for each division of deicing heaters (M3)) is sufficient to ensure that the required number of heaters are Operable. The current requirement in CTS 4.11.E.2 to monitor individual heater current whenever large deviations are identified in the feeder current checks is necessary to identify which heater circuit is open. However, as long as the overall current is within limits (> 90 amps) at least 18 heaters will be Operable and the Limiting Condition for Operation is met. Therefore, this change does not involve a significant reduction in a margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

MARKUP OF NUREG-1433, REVISION 1 SPECIFICATION

3.7 PLANT SYSTEMS

3.7.2 [Plant Service Water (PSW)] System and [Ultimate Heat Sink (UHS)]

[3.11.D.1] LCO 3.7.2 Two [PSW] subsystems and [UHS] shall be OPERABLE.

[3.11.D.1] APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One [PSW] pump inoperable.	A.1 Restore [PSW] pump to OPERABLE status.	30 days
B. One [PSW] pump in each subsystem inoperable.	B.1 Restore one [PSW] pump to OPERABLE status.	7 days
[C. One or more cooling towers with one cooling tower fan inoperable.	C.1 Restore cooling tower fan(s) to OPERABLE status.	7 days]

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One [PSW] subsystem inoperable for reasons other than Condition[s] A [and C].	B.1 ---------NOTES--------- 1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources—Operating," for diesel generator made inoperable by [PSW]. 2. Enter applicable Conditions and Required Actions of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown," for [RHR shutdown cooling] made inoperable by [PSW]. ------------------------- Restore the [PSW] subsystem to OPERABLE status.	[72] hours

(continued)

Insert ACTION B

Revision C

INSERT ACTION B (DB3)

B. One division of required deicing heaters inoperable AND UHS temperature ≤ 37°F.	----------NOTES----------- Enter applicable Conditions and Required Actions of LCO 3.8.1 for emergency diesel generator made inoperable by deicing heaters. ------------------------- B.1 Restore the division of deicing heaters to OPERABLE status.	 7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met. OR Both [PSW] subsystems inoperable for reasons other than Condition B and A. OR [UHS] inoperable for reasons other than Condition B.	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Verify the water level of each [PSW] cooling tower basin is ≥ [ ] ft.	24 hours
SR 3.7.2.1	Verify the water level in the screenwell is ≥ 236.5 ft mean sea level.	24 hours
SR 3.7.2.2	Verify the water temperature of UHS is ≤ 85°F.	24 hours

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.2.4	Operate each [PSW] cooling tower fan for ≥ [15] minutes.	31 days
SR 3.7.2.5	-------------------NOTE------------------- Isolation of flow to individual components does not render [PSW] System inoperable. -- Verify each [PSW] subsystem manual, power operated, and automatic valve in the flow paths servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.2.6	Verify each [PSW] subsystem actuates on an actual or simulated initiation signal.	[18] months

Insert SR-2

Insert SR-1

CLB3 **INSERT SR-1**

SR 3.7.2.3	------------------NOTE------------------ Not required to be met if UHS temperature is > 37°F. ---	
[3.11.E] [4.11.E.1]	Verify the required deicing heater feeder current is within limits for each division of deicing heaters.	7 days

CLB3 **INSERT SR-2**

SR 3.7.2.5	------------------NOTE------------------ Not required to be met if UHS temperature is > 37°F. ---	
[3.11.E] [4.11.E.2]	Verify the required deicing heater power is within limits for each division of deicing heaters.	6 months
SR 3.7.2.6	------------------NOTE------------------ Not required to be met if UHS temperature is > 37°F. ---	
[3.11.E] [4.11.E.3]	Verify the required deicing heater resistance to ground is within limits for each division of deicing heaters.	12 months

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.7.2 - EMERGENCY SERVICE WATER (ESW) SYSTEM AND ULTIMATE HEAT SINK (UHS)

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The ITS 3.7.2 ACTIONS A Completion Time of 7 days is consistent with the current licensing basis (CTS 3.11.D.2) and with the Completion Time of an inoperable emergency diesel generator subsystem in ITS 3.8.1.

CLB2 The brackets have been removed the proper value included. The ITS SR 3.7.2.7 Frequency of 24 months is consistent with the current licensing basis (CTS 4.11.D.1.a).

CLB3 Three additional Surveillance Requirements have been added to ITS 3.7.2 consistent with the existing requirements in CTS 4.11.E. Subsequent SRs have been renumbered as required.

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

PA1 Editorial changes have been made to be consistent with the Writers Guide.

PA2 Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the plant specific nomenclature.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 The brackets have been removed and the proper plant specific information/value has been provided.

DB2 ISTS 3.7.2 ACTIONS A and B have been deleted since each ESW subsystem at JAFNPP has only one pump. Subsequent ACTIONS have been renumbered and modified, as applicable.

DB3 ISTS 3.7.2 ACTION C and ISTS SRs 3.7.2.1 and 3.7.2.4 are being deleted because the design of JAFNPP Emergency Service Water System does not include cooling towers. However, ACTION B has been added to cover the condition where one division of required deicing heaters is inoperable. Subsequent ACTIONS and SRs have also been renumbered and modified, as applicable.

DB4 ISTS 3.7.2 Required Action D.1 Note 2 has been deleted since an inoperable ESW subsystem does not necessarily make RHR Shutdown Cooling System inoperable. ESW provides cooling to the crescent area coolers which supports the Operability of the RHR pumps, however the cooling capacity of the other crescent area coolers can provide support to all RHR pumps. The Safety Function Determination Program will be

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB4 (continued)

implemented at ITS implementation as required by LCO 3.0.6 and described in Specification 5.5.12. This program will provide the appropriate guidance for entry into the applicable Conditions and Required Actions of LCO 3.4.7 upon loss of the cooling function, therefore the deletion of this Note is considered acceptable.

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: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.7 PLANT SYSTEMS

B 3.7.2 [Plant] Service Water ([PSW]) System and [Ultimate Heat Sink ([UHS])]

BASES

BACKGROUND

The [PSW] System is designed to provide cooling water for the removal of heat from equipment, such as the diesel generators (DGs), residual heat removal (RHR) pump coolers, and room coolers for Emergency Core Cooling System equipment, required for a safe reactor shutdown following a Design Basis Accident (DBA) or transient. The [PSW] System also provides cooling to unit components, as required, during normal operation. Upon receipt of a loss of offsite power or loss of coolant accident (LOCA) signal, nonessential loads are automatically isolated, the essential loads are automatically divided between [PSW] Divisions 1 and 2, and one [PSW] pump is automatically started in each division.

The [PSW] System consists of the [UHS] and two independent and redundant subsystems. Each of the two [PSW] subsystems is made up of a header, two [8500] gpm pumps, a suction source, valves, piping and associated instrumentation. Either of the two subsystems is capable of providing the required cooling capacity to support the required systems with one pump operating. The two subsystems are separated from each other so failure of one subsystem will not affect the OPERABILITY of the other system.

Cooling water is pumped from the [Altamaha River] by the [PSW] pumps to the essential components through the two main headers. After removing heat from the components, the water is discharged to the circulating water flume to replace evaporation losses from the circulating water system or directly to the river via a bypass valve.

APPLICABLE SAFETY ANALYSES

Sufficient water inventory is available for all [PSW] System post LOCA cooling requirements for a 30 day period with no additional makeup water source available. The ability of the [PSW] System to support long term cooling of the reactor containment is assumed in evaluations of the equipment required for safe reactor shutdown presented in the FSAR, Chapters [6] and [15] (Refs. 1 and 2, respectively). These

(continued)

INSERT BKGRD 1 (DB5)

Each ESW pump will automatically pump to the associated EDG cooler. The remaining ESW loads will be automatically cooled when the associated ESW supply header isolation valve opens and the associated ESW minimum flow valve closes. This occurs when the ESW lockout matrix logic actuates upon low reactor building closed loop cooling water pump discharge pressure. This logic is discussed in LCO 3.3.7.3, "Emergency Service Water (ESW) System Instrumentation". In addition, the ESW pumps will automatically start in response to the ESW lockout matrix logic. However, this function is not required for safe reactor shutdown since the ESW pumps will start when any associated EDG starts.

INSERT BKGRD 2 (PA3)

The ESW System is described in UFSAR, Section 9.7.1 (Ref. 1).

INSERT BKGRD 3 (DB12)

RAI 3.7.2-3

The lake intake structure is a reinforced concrete structure sitting on the lake bottom at a distance of approximately 900 ft from the shoreline in approximately 25 ft of water. The top surface of the intake structure is at the 233 feet elevation (above sea level), which is approximately 10 feet below the historically lowest monthly mean lake level. The intake is a roofed structure which draws water in through side openings that are protected with bar racks spaced at 1 foot centers to block the entrance of large debris. This results in water being taken in at lower levels and prevents the formation of vortices at the surface, thus minimizing the possibility of floating ice being drawn down from the surface. The intake area is approximately 8 ft by 70 ft which results in an intake velocity of approximately 1.9 feet per second (fps) or less during normal operating conditions. During safe shutdown condition with only two Residual Heat Removal Service Water (RHRSW) pumps and one ESW pump operating, the flow velocity at the intake structure is a maximum of 0.06 fps.

RAI 3.7.2-2

The bar racks are heated by deicing heaters to prevent frazil ice crystals from adhering to the bars and diminishing intake flow. The capacity of these deicing heaters keeps the temperature of the bars at approximately 34°F during periods when subcooling occurs (i.e., water subcooled below the normal freezing point without the formation of bulk ice) and the plant is operating under normal conditions with the circulating water system in service. Each deicing heater is rated at 1670 watts. Deicing heaters are installed in 88 bar racks (44 in each division).

BASES

APPLICABLE SAFETY ANALYSES (continued)

analyses include the evaluation of the long term primary containment response after a design basis LOCA.

The ability of the [PSW] System to provide adequate cooling to the identified safety equipment is an implicit assumption for the safety analyses evaluated in References [ ] and [ ]. The ability to provide onsite emergency AC power is dependent on the ability of the [PSW] System to cool the DGs. The long term cooling capability of the RHR, core spray, and RHR service water pumps is also dependent on the cooling provided by the [PSW] System.

The [PSW] System, together with the [UHS], satisfy Criterion 3 of the NRC Policy Statement.

LCO

The [PSW] subsystems are independent of each other to the degree that each has separate controls, power supplies, and the operation of one does not depend on the other. In the event of a DBA, one subsystem of [PSW] is required to provide the minimum heat removal capability assumed in the safety analysis for the system to which it supplies cooling water. To ensure this requirement is met, two subsystems of [PSW] must be OPERABLE. At least one subsystem will operate, if the worst single active failure occurs coincident with the loss of offsite power.

A subsystem is considered OPERABLE when it has an OPERABLE [UHS], [two] OPERABLE pumps, and an OPERABLE flow path capable of taking suction from the intake structure and transferring the water to the appropriate equipment.

The OPERABILITY of the [UHS] is based on having a minimum water level in the pump well of the intake structure of [60.7] ft mean sea level and a maximum water temperature of [90]°F.

The isolation of the [PSW] System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the [PSW] System.

APPLICABILITY

In MODES 1, 2, and 3, the [PSW] System and [UHS] are required to be OPERABLE to support OPERABILITY of the

(continued)

DB1

Insert ASA

The long term cooling capability of RHR and core spray pumps is dependent on the capability of the ESW System to provide cooling to the EDGs as well as the crescent area coolers.

DB12

INSERT LCO

With UHS temperature at ≤ 37°F and with a minimum water level in the screenwell of 236.5 ft mean sea level, the UHS is capable of supporting operations in MODES 1, 2 and 3 at flow rates ≥ 370,000 gpm. If a Design Bases Accident were to occur, the safe shutdown flow rates of ≥ 11,700 gpm (two RHRSW pumps and an ESW pump) can be achieved as long as 18 deicing heaters are OPERABLE and each producing 1465 watts. Therefore, 18 deicing heaters are required to be OPERABLE in each electrical division.

BASES

APPLICABILITY (continued)

equipment serviced by the [PSW] System. Therefore, the [PSW] System and [UHS] are required to be OPERABLE in these MODES.

In MODES 4 and 5, the OPERABILITY requirements of the [PSW] System and [UHS] are determined by the systems they support.

ACTIONS

A.1

With one [PSW] pump inoperable in each subsystem, the inoperable pump must be restored to OPERABLE status within 7 days. With the unit in this condition, the remaining OPERABLE [PSW] pumps (even allowing for an additional single failure) are adequate to perform the [PSW] heat removal function; however, the overall reliability is reduced. The 30 day Completion Time is based on the remaining [PSW] heat removal capability to accommodate additional single failures, and the low probability of an event occurring during this time period.

B.1

With one [PSW] pump inoperable in each subsystem, one inoperable pump must be restored to OPERABLE status within 7 days. With the unit in this condition, the remaining OPERABLE [PSW] pumps are adequate to perform the [PSW] heat removal function; however, the overall reliability is reduced. The 7 day Completion Time is based on the remaining [PSW] heat removal capability to accommodate an additional single failure and the low probability of an event occurring during this time period.

[C.1

If one or more cooling towers have one fan inoperable (i.e., up to one fan per cooling tower inoperable), action must be taken to restore the inoperable cooling tower fan(s) to OPERABLE status within 7 days. The 7 day Completion Time is based on the low probability of an accident occurring during the 7 days that one cooling tower fan is inoperable in one or more cooling towers, the number of available systems, and]

(continued)

PA3

INSERT APP

and therefore, the requirements are not the same for all facets of operation in MODES 4 and 5. Thus, LCO 3.8.2, "AC Sources – Shutdown," which requires the ESW System to be OPERABLE, will govern ESW System operation in MODES 4 and 5.

BASES

ACTIONS

C.1 (continued)

the time required to reasonably complete the Required Action.

D.1

With one [PSW] subsystem inoperable for reasons other than Condition A and [Condition C] (e.g., inoperable flow path or both pumps inoperable in a loop), the [PSW] subsystem must be restored to OPERABLE status within 72 hours. With the unit in this condition, the remaining OPERABLE [PSW] subsystem is adequate to perform the heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE [PSW] subsystem could result in loss of [PSW] function.

The 72 hour Completion Time is based on the redundant [PSW] System capabilities afforded by the OPERABLE subsystem, the low probability of an accident occurring during this time period, and is consistent with the allowed Completion Time for restoring an inoperable DG.

Required Action D.1 is modified by two Notes indicating that the applicable Conditions of LCO 3.8.1, "AC Sources—Operating," LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown," be entered and Required Actions taken if the inoperable [PSW] subsystem results in an inoperable DG or RHR shutdown cooling subsystem, respectively. This is in accordance with LCO 3.0.6 and ensures the proper actions are taken for these components.

E.1 and E.2

If the [PSW] subsystem cannot be restored to OPERABLE status within the associated Completion Time, or both [PSW] subsystems are inoperable for reasons other than Condition B and [Condition C], or the [UHS] is determined inoperable for reasons other than Condition C, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full

(continued)

Insert ACTION B (DB3)

B.1

With one division of deicing heaters inoperable, the deicing heaters must be restored to OPERABLE status within 7 days. With the plant in this condition, the remaining OPERABLE division of deicing heaters is adequate to perform the required function. However, the overall reliability is reduced because a single failure in the OPERABLE division of deicing heaters could result in loss of ESW and RHRSW function.

The 7 day Completion Time is based on the redundant capabilities afforded by the OPERABLE division of deicing heaters, the low probability of an accident occurring during this time period, and is consistent with the allowed Completion Time for restoring an inoperable EDG subsystem.

Required Action B.1 is modified by a Note indicating that the applicable Conditions of LCO 3.8.1 be entered and Required Actions taken if the inoperable division of deicing heaters results in an inoperable EDG subsystem. This is in accordance with LCO 3.0.6 and ensures the proper actions are taken for this component.

BASES

ACTIONS

B.1 and B.2 (continued)

power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.2.1

This SR ensures adequate long term (30 days) cooling can be maintained. With the [UHS] water source below the minimum level, the affected [PSW] subsystem must be declared inoperable. The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

SR 3.7.2.2

This SR verifies the water level [in each pump well of the intake structure] to be sufficient for the proper operation of the [PSW] pumps (net positive suction head and pump vortexing are considered in determining this limit). The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

SR 3.7.2.3

Verification of the [UHS] temperature ensures that the heat removal capability of the [PSW] System is within the assumptions of the DBA analysis. The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

SR 3.7.2.4

Operating each cooling tower fan for ≥ 15 minutes ensures that all fans are OPERABLE and that all associated controls are functioning properly. It also ensures that fan or motorfailure, or excessive vibration, can be detected for corrective action. The 31 day Frequency is based on operating experience, the known reliability of the fan units, the redundancy available, and the low probability of

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.2.4 (continued)

significant degradation of the cooling tower fans occurring between surveillances.

SR 3.7.2.5

Verifying the correct alignment for each manual, power operated, and automatic valve in each [PSW] subsystem flow path provides assurance that the proper flow paths will exist for [PSW] operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position, and yet considered in the correct position, provided it can be automatically realigned to its accident position within the required time. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

This SR is modified by a Note indicating that isolation of the [PSW] System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the [PSW] System. As such, when all [PSW] pumps, valves, and piping are OPERABLE, but a branch connection off the main header is isolated, the [PSW] System is still OPERABLE.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.2.6

This SR verifies that the automatic isolation valves of the [PSW] System will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This is demonstrated by the use of an actual or simulated

(continued)

{CLB3}

INSERT SRs

SR 3.7.2.3, SR 3.7.2.5, and SR 3.7.2.6

These SRs are modified by a NOTE indicating that these SRs are not required to be met if UHS temperature is > 37°F. Industry experience has shown that frazil ice will not adhere to the bar racks that are above freezing temperatures. Therefore at these elevated temperatures, blockage of the intake is unlikely and the deicing heaters are not required to be OPERABLE.

Verification of the required deicing feeder current in SR 3.7.2.3 and the required deicing heater power in SR 3.7.2.5 will help ensure that adequate heat is being provided at the bar racks to ensure that frazil ice does not adhere to them. Verification of the required deicing heater resistance to ground in SR 3.7.2.6 is performed to monitor long term degradation of the cable and heater insulations. SR 3.7.2.3 can be performed by measuring the current in all three phases of the feeder cables to each division and ensuring the total current is within limits to confirm that at least 18 deicing heaters are OPERABLE in each division. SR 3.7.2.5 is performed to verify that at least 18 deicing heaters in each division are each dissipating at least 1465 watts. The 7 day Frequency of SR 3.7.2.3 and the 6 month Frequency of SR 3.7.2.5 is based on operating experience that shows the heaters are reliable. The 12 month Frequency of SR 3.7.2.6 has shown that the components usually pass the SR when performed at the 12 month Frequency. Therefore, this Frequency is considered to be acceptable from a reliability standpoint.

associated with each EDG. In addition, the proper positioning of the ESW supply header isolation valves and the ESW minimum flow valves, upon actual or simulated ESW lockout matrix logic actuation must be demonstrated in this SR.

DB5 DB1 E

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.2.~~6~~ 7 (continued)

initiation signal. This SR ~~also~~ verifies the automatic start capability of ~~one~~ of the ~~two~~ ~~(~~ESW~~)~~ pumps in each subsystem.

move to previous page DB5 DB3 DB6 DB1 E CLB2

Operating experience has shown that these components usually pass the SR when performed at the ~~[18]~~ 24 month Frequency. Therefore, this Frequency is concluded to be acceptable from a reliability standpoint.

1. UFSAR, Section 9.7.1 DB9

REFERENCES

2 1. ~~U~~FSAR, Chapter ~~[10]~~ 5.

3 ~~2~~. ~~U~~FSAR, Chapter ~~[6]~~ 14.

PA2 DB8 DB9

4. 10 CFR 50.36 (c)(2)(ii) X1

The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.7.3, "Emergency Service Water (ESW) System Instrumentation" overlaps this surveillance to provide complete testing of the assumed safety function.

PA3 DB5

ESW will not be supplied to the Reactor Building Closed Loop Cooling Water System during the performance of this test to avoid contaminating this system with lake water

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.7.2 - EMERGENCY SERVICE WATER (ESW) SYSTEM AND ULTIMATE HEAT SINK (UHS)

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The ITS 3.7.2 ACTIONS A Completion Time of 7 days is consistent with the current licensing basis (CTS 3.11.D.2) and with the Completion Time of an inoperable emergency diesel generator subsystem in ITS 3.8.1.

CLB2 The brackets have been removed and the proper value included. The ITS SR 3.7.2.4 Frequency of 24 months is consistent with the current licensing basis (CTS 4.11.D.1.a).

CLB3 ITS SRs 3.7.2.3, 3.7.2.5 and 3.7.2.6 have been added consistent with CTS 4.11.E. The Bases have been revised to revised to reflect the addition of these requirements. Subsequent SRs have also been renumbered, as applicable.

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

PA1 Not Used.

PA2 Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the plant specific nomenclature.

PA3 Editorial change made for enhanced clarity or to be consistent with similar statements in other places in the Bases.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 The brackets have been removed and the proper plant specific information/value has been provided.

DB2 ISTS 3.7.2 ACTIONS A and B have been deleted since each ESW subsystem at JAFNPP has only one pump. Subsequent ACTIONS have been renumbered and modified, as applicable.

DB3 ISTS 3.7.2 ACTION C and ISTS SRs 3.7.2.1 and 3.7.2.4 are being deleted because the design of JAFNPP Emergency Service Water System does not include cooling towers. However, ACTION B has been added to cover the condition where one division of required deicing heaters is inoperable. Subsequent ACTIONS and SRs have also been renumbered and modified, as applicable.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB4 ISTS 3.7.2 Required Action D.1 Note 2 has been deleted since an inoperable ESW subsystem does not necessarily make RHR Shutdown Cooling System inoperable. ESW provides cooling to the crescent area coolers which supports the Operability of the RHR pumps, however the cooling capacity of the other crescent area coolers can provide support to all RHR pumps. The Safety Function Determination Program will be implemented at ITS implementation as required by LCO 3.0.6 and described in Specification 5.5.12. This program will provide the appropriate guidance for entry into the applicable Conditions and Required Actions of LCO 3.4.7 upon loss of the cooling function, therefore the deletion of this Note is considered acceptable.

DB5 The Bases has been revised to reflect the specific loads of the ESW system and the required initiation logic.

DB6 Changes have been made to reflect that each ESW subsystem includes only one ESW pump.

DB7 The Bases has been revised to reflect the ESW subsystem flow path.

DB8 The brackets have been removed and the appropriate references included.

DB9 The Bases have been revised to reflect the appropriate references. References have been renumbered where applicable to reflect this change.

DB10 ITS 3.7.2 Background description concerning normal plant operation has been deleted since the JAFNPP Emergency Service Water System is a standby system.

DB11 The ITS 3.7.2 Applicable Safety Analysis wording has been revised to reflect the actual support features provided by the ESW system to support the RHR and core spray pumps. The ESW system does not provide any direct support to the RHR service water pump other than supplying the EDG which is covered in the previous sentence.

DB12 The ITS 3.7.2 Background and LCO has been modified to reflect the JAFNPP specific features of the UHS (intake structure and deicing heaters) consistent with UFSAR Section 12.3.7.

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: 3.7.2

Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.7 PLANT SYSTEMS

3.7.2 Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

LCO 3.7.2 Two ESW subsystems and UHS shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ESW subsystem inoperable.	-----------NOTE----------- Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources - Operating," for emergency diesel generator subsystem made inoperable by ESW. --------------------------	
	A.1 Restore the ESW subsystem to OPERABLE status.	7 days
B. One division of required deicing heaters inoperable. AND UHS temperature ≤ 37°F.	---------NOTES------------ Enter applicable Conditions and Required Actions of LCO 3.8.1 for emergency diesel generator subsystem made inoperable by deicing heaters. --------------------------	
	B.1 Restore the division of deicing heaters to OPERABLE status.	7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Required Action and associated Completion Time not met. OR Both ESW subsystems inoperable for reasons other than Condition A. OR UHS inoperable for reasons other than Condition B.	C.1 AND C.2	Be in MODE 3. Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Verify the water level in the ESW pump screenwell is ≥ 236.5 ft mean sea level.	24 hours
SR 3.7.2.2	Verify the average water temperature of UHS is ≤ 85°F.	24 hours
SR 3.7.2.3	-----NOTE----- Not required to be met if UHS temperature is > 37°F. ---------- Verify the required deicing heater feeder current is within limits for each division of deicing heaters.	7 days
SR 3.7.2.4	-----NOTE----- Isolation of flow to individual components does not render ESW System inoperable. ---------- Verify each ESW subsystem manual, power operated, and automatic valve in the flow paths servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.2.5	------------------NOTE------------------ Not required to be met if UHS temperature is > 37°F. --- Verify the required deicing heater power is within limits for each division of deicing heaters.	6 months
SR 3.7.2.6	------------------NOTE------------------ Not required to be met if UHS temperature is > 37°F. --- Verify the required deicing heater resistance to ground is within limits for each division of deicing heaters.	12 months
SR 3.7.2.7	Verify each ESW subsystem actuates on an actual or simulated initiation signal.	24 months

B 3.7 PLANT SYSTEMS

B 3.7.2 Emergency Service Water (ESW) System and Ultimate Heat Sink (UHS)

BASES

BACKGROUND

The ESW System is designed to provide cooling water for the removal of heat from equipment, such as the emergency diesel generators (EDGs), electric bay coolers, crescent area coolers, cable tunnel/switchgear room coolers and control room and relay room air handling units, required for a safe reactor shutdown following a Design Basis Accident (DBA) or transient. Upon receipt of a loss of offsite power or loss of coolant accident (LOCA) signal, the EDGs will start which in turn starts the associated ESW pump. Each ESW pump will automatically pump to the associated EDG cooler. The remaining ESW loads will be automatically cooled when the associated ESW supply header isolation valve opens and the associated ESW minimum flow valve closes. This occurs when the ESW lockout matrix logic actuates upon low reactor building closed loop cooling water pump discharge pressure. This logic is discussed in LCO 3.3.7.3, "Emergency Service Water (ESW) System Instrumentation". In addition, the ESW pumps will automatically start in response to the ESW lockout matrix logic. However, this function is not required for safe reactor shutdown since the ESW pumps will start when any associated EDG starts.

The ESW System consists of the UHS and two independent and redundant subsystems. Each of the two ESW subsystems is made up of a header, one 3700 gpm pump, a suction source, valves, piping and associated instrumentation. The two subsystems are separated from each other so failure of one subsystem will not affect the OPERABILITY of the other system. The ESW System is described in UFSAR, Section 9.7.1 (Ref. 1).

Cooling water flows from Lake Ontario (UHS) through the intake tunnel to the screenwell where the water is pumped by the ESW pumps to components through the two main headers. After removing heat from the components, the water is discharged to the discharge tunnel where it returns to Lake Ontario.

The intake structure is a reinforced concrete structure sitting on the lake bottom at a distance of approximately 900 ft from the shoreline in approximately 25 ft of water.

(continued)

BASES

RAI 3.7.2-3

BACKGROUND (continued)

The top surface of the intake structure is at the 233 feet elevation (above sea level), which is approximately 10 feet below the historically lowest monthly mean lake level. The intake is a roofed structure which draws water in through side openings that are protected with bar racks spaced at 1 foot centers to block the entrance of large debris. This results in water being taken in at lower levels and prevents the formation of vortices at the surface, thus minimizing the possibility of floating ice being drawn down from the surface. The intake area is approximately 8 ft by 70 ft which results in an intake velocity of approximately 1.9 feet per second (fps) or less during normal operating conditions. During safe shutdown condition with only two residual heat removal service water (RHRSW) pumps and one ESW pump operating, the flow velocity at the intake structure is a maximum of 0.06 fps.

RAI 3.7.2-2

The bar racks are heated by deicing heaters to prevent frazil ice crystals from adhering to the bars and diminishing intake flow. The capacity of these deicing heaters keeps the temperature of the bars at approximately 34°F during periods when subcooling occurs (i.e., water subcooled below the normal freezing point without the formation of bulk ice) and the plant is operating under normal conditions with the circulating water system in service. Each deicing heater is rated at 1670 watts. Deicing heaters are installed in 88 bar racks (44 in each division).

APPLICABLE SAFETY ANALYSES

Since Lake Ontario is the UHS, sufficient water inventory is available for all ESW System post LOCA cooling requirements for a 30 day period. The OPERABILITY of the ESW System is assumed in evaluations of the equipment required for safe reactor shutdown presented in the UFSAR, Chapters 5 and 14 (Refs. 2 and 3, respectively). These analyses include the evaluation of the long term primary containment response after a design basis LOCA.

The ability of the ESW System to provide adequate cooling to the identified safety equipment is an implicit assumption for the safety analyses evaluated in References 2 and 3. The ability to provide onsite emergency AC power is

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

dependent on the ability of the ESW System to cool the EDGs. The long term cooling capability of RHR and core spray pumps is dependent on the capability of the ESW System to provide cooling to the EDGs as well as the crescent area coolers.

The ESW System, together with the UHS, satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii) (Ref. 4).

LCO

The ESW subsystems are independent of each other to the degree that each has separate controls, power supplies, and the operation of one does not depend on the other. In the event of a DBA, one subsystem of ESW is required to provide the minimum heat removal capability assumed in the safety analysis for the system to which it supplies cooling water. To ensure this requirement is met, two subsystems of ESW must be OPERABLE. At least one subsystem will operate, if the worst single active failure occurs coincident with the loss of offsite power.

A subsystem is considered OPERABLE when it has an OPERABLE UHS, one OPERABLE pump, and an OPERABLE flow path capable of taking suction from the intake structure and transferring the water to the appropriate equipment.

The OPERABILITY of the UHS is based on having a minimum water level in the screenwell of 236.5 ft mean sea level and a maximum water temperature of 85°F. With the UHS temperature at ≤ 37°F and with a minimum water level in the screenwell of 236.5 ft mean sea level, the UHS is capable of supporting operations in MODES 1, 2 and 3 at flow rates ≥ 370,000 gpm. If a Design Bases Accident were to occur, the safe shutdown flow rates of ≥ 11,700 gpm (two RHRSW pumps and an ESW pump) can be achieved as long as 18 deicing heaters are OPERABLE and each producing 1465 watts. Therefore, 18 deicing heaters are required to be OPERABLE in each electrical division.

The isolation of the ESW System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the ESW System.

(continued)

BASES (continued)

APPLICABILITY

In MODES 1, 2, and 3, the ESW System and UHS are required to be OPERABLE to support OPERABILITY of the equipment serviced by the ESW System. Therefore, the ESW System and UHS are required to be OPERABLE in these MODES.

In MODES 4 and 5, the OPERABILITY requirements of the ESW System and UHS are determined by the systems they support and therefore, the requirements are not the same for all facets of operation in MODES 4 and 5. Thus, LCO 3.8.2, "AC Sources - Shutdown," which requires the ESW System to be OPERABLE, will govern ESW System operation in MODES 4 and 5.

ACTIONS

A.1

With one ESW subsystem inoperable, the ESW subsystem must be restored to OPERABLE status within 7 days. With the plant in this condition, the remaining OPERABLE ESW subsystem is adequate to perform the heat removal function. However, the overall reliability is reduced because a single active component failure in the OPERABLE ESW subsystem could result in loss of ESW function.

The 7 day Completion Time is based on the redundant ESW System capabilities afforded by the OPERABLE subsystem, the low probability of an accident occurring during this time period, and is consistent with the allowed Completion Time for restoring an inoperable EDG subsystem.

Required Action A.1 is modified by a Note indicating that the applicable Conditions of LCO 3.8.1, "AC Sources - Operating," be entered and Required Actions taken if the inoperable ESW subsystem results in an inoperable EDG subsystem. This is in accordance with LCO 3.0.6 and ensures the proper actions are taken for this component.

B.1

With one division of deicing heaters inoperable, the deicing heaters must be restored to OPERABLE status within 7 days. With the plant in this condition, the remaining OPERABLE division of deicing heaters is adequate to perform the required function. However, the overall reliability is

(continued)

BASES

ACTIONS

B.1 (continued)

reduced because a single failure in the OPERABLE division of deicing heaters could result in loss of ESW and RHRSW function.

The 7 day Completion Time is based on the redundant capabilities afforded by the OPERABLE division of deicing heaters, the low probability of an accident occurring during this time period, and is consistent with the allowed Completion Time for restoring an inoperable EDG subsystem.

Required Action B.1 is modified by a Note indicating that the applicable Conditions of LCO 3.8.1 be entered and Required Actions taken if the inoperable division of deicing heaters results in an inoperable EDG subsystem. This is in accordance with LCO 3.0.6 and ensures the proper actions are taken for this component.

C.1 and C.2

If the ESW subsystem cannot be restored to OPERABLE status within the associated Completion Time, or both ESW subsystems are inoperable, or the UHS is determined inoperable the plant must be placed in a MODE in which the LCO does not apply. To achieve this status, the plant must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.2.1

This SR verifies the water level in the screenwell to be sufficient for the proper operation of the ESW and RHRSW pumps (net positive suction head and pump vortexing are considered in determining this limit). The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.2.2

Verification of the UHS temperature ensures that the heat removal capability of the ESW System is within the assumptions of the DBA analysis. The 24 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

SR 3.7.2.3, SR 3.7.2.5, and SR 3.7.2.6

These SRs are modified by a NOTE indicating that these SRs are not required to be met if UHS temperature is > 37°F. Industry experience has shown that frazil ice will not adhere to the bar racks that are above freezing temperatures. Therefore at these elevated temperatures, blockage of the intake is unlikely and the deicing heaters are not required to be OPERABLE.

Verification of the required deicing feeder current in SR 3.7.2.3 and the required deicing heater power in SR 3.7.2.5 will help ensure that adequate heat is being provided at the bar racks to ensure that frazil ice does not adhere to them. Verification of the required deicing heater resistance to ground in SR 3.7.2.6 is performed to monitor long term degradation of the cable and heater insulations. SR 3.7.2.3 can be performed by measuring the current in all three phases of the feeder cables to each division and ensuring the total current is within limits to confirm that at least 18 deicing heaters are OPERABLE in each division. SR 3.7.2.5 is performed to verify that at least 18 deicing heaters in each division are each dissipating at least 1465 watts. The 7 day Frequency of SR 3.7.2.3 and the 6 month Frequency of SR 3.7.2.5 is based on operating experience that shows the heaters are reliable. The 12 month Frequency of SR 3.7.2.6 has shown that the components usually pass the SR when performed at the 12 month Frequency. Therefore, this Frequency is considered to be acceptable from a reliability standpoint.

SR 3.7.2.4

Verifying the correct alignment for each manual, power operated, and automatic valve in each ESW subsystem flow path provides assurance that the proper flow paths will

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.2.4 (continued)

exist for ESW operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these valves were verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position, and yet considered in the correct position, provided it can be automatically realigned to its accident position within the required time. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves. This SR is modified by a Note indicating that isolation of the ESW System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the ESW System. As such, when all ESW pumps, valves, and piping are OPERABLE, but a branch connection off the main header is isolated, the ESW System is still OPERABLE.

The 31 day Frequency is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.2.7

This SR verifies the automatic start capability of the ESW pump in each subsystem. This is demonstrated by the use of an actual or simulated initiation signal associated with each EDG. In addition, the proper positioning of the ESW supply header isolation valves and the ESW minimum flow valves, upon actual or simulated ESW lockout matrix logic actuation, must be demonstrated in this SR. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.7.3, "Emergency Service Water (ESW) System Instrumentation," overlaps this Surveillance to provide complete testing of the assumed safety function. ESW will not be supplied to the Reactor Building Closed Loop Cooling System during the performance of this test to avoid contaminating this system with lake water.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.2.7 (continued)

Operating experience has shown that these components usually pass the SR when performed at the 24 month Frequency. Therefore, this Frequency is concluded to be acceptable from a reliability standpoint.

REFERENCES

1. UFSAR, Section 9.7.1.
2. UFSAR, Chapter 5.
3. UFSAR, Chapter 14.
4. 10 CFR 50.36(c)(2)(ii).

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

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: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Specification 3.7.3 (A1)

JAFNPP

3.11 LIMITING CONDITIONS FOR OPERATION

3.11 ADDITIONAL SAFETY RELATED PLANT CAPABILITIES

Applicability:

Applies to the operating status of the main control and relay rooms, and battery room ventilation and cooling. Applies to emergency service water system and intake deicing heaters.

Objective:

To assure the availability of the main control and relay room, and battery room ventilation systems, to assure the availability of the emergency service water system and intake deicing heaters, under the conditions for which the capability is an essential response to plant abnormalities.

[3.7.3] A. Main Control Room Emergency Ventilation Air Supply (CREVAS) System

[LCO 3.7.3]

1. The reactor shall not have a coolant temperature greater than 212 °F and fuel may not be handled unless both of the control room emergency ventilation air supply fans and fresh air filter trains are available for normal operation except that one emergency (LA1)

Two CREVAS Subsystems shall be OPERABLE.

[APPLICABILITY]

add: MODE 2, during CORE ALTERATIONS, and during operations with a potential to drain the reactor vessel (OPDRVs) (M1)

ADD LCO NOTE (M4)

4.11 SURVEILLANCE REQUIREMENTS

4.11 ADDITIONAL SAFETY RELATED PLANT CAPABILITIES

Applicability:

Applies to the surveillance requirements for the main control and relay room, battery room ventilation systems, emergency service water and intake deicing heaters.

Objective:

To verify the operability or availability under conditions for which these capabilities are an essential response to plant abnormalities.

[3.7.3] B. Main Control Room Emergency Ventilation Air Supply System (CREVAS) System

1. Each of the control room emergency ventilation* air supply fans and dampers shall be tested for operability every 3 months. (M2)

The fresh air filter trains shall be tested once every 6 months as follows:

[SR 3.7.3.2] (A2)

a. Pressure drop test across each filter and the filter system.

See ITS: 5.5.8

Operate each CREVAS subsystem ≥ 15 minutes 92 days

[SR 3.7.3.1]

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Specification 3.7.3

(A.1)

3.11 (cont'd)

(LA1)

[ACTION A] ventilation air supply fan and/or filter may be out of service for 14 7 days. (M4) (M3)

add ACTION B

add ACTIONS C and D

(M3)

2. The main control room air radiation monitor shall be operable whenever the control room emergency ventilation air supply fans and filter trains are required to be operable by 3.11.A.1 or filtration of the control room ventilation intake air must be initiated.

See ITS 3.3.7.1

4.11 (cont'd)

See ITS 5.5.8

(A2) [SR 3.7.3.2]

b. Di-octylphtalate (DOP) test for particulate filter efficiency greater than 99% for particulate greater than 0.3 micron size.

c. Freon-112 test for charcoal filter bypass as a measure of filter efficiency of at least 99.5% for halogen removal.

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2. At least once per 24 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release, that could adversely affect the ability of the charcoal to perform its intended function, in any ventilation zone communicating with the system, verify:

(1) Within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration to be less than or equal to 5 percent when tested in accordance with ASTM D3803-1989 at a temperature of 30 degrees C [86 degrees F], and a relative humidity of at least 95 percent.

(2) Within 31 days of completing 720 hours of charcoal adsorber operation, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration to be less than or equal to 5 percent when tested in accordance with ASTM D3803-1989 at a temperature of 30 degrees C [86 degrees F], and a relative humidity of at least 95 percent.

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Specification 3.7.3

A1

3.11 (cont'd)

3. The control room emergency ventilation system shall not be out of service for a period exceeding 3 days during normal reactor operation or refueling operations. In the event that the system is not returned to service within 3 days, ~~the reactor shall be in cold shutdown within 24 hours and~~ any handling of irradiated fuel, core alterations, ~~and operations with a potential for draining the reactor vessel shall be suspended as soon as practicable~~

[ACTION E] [Enter LCO 3.0.3] [ACTION F] M4

~~4. Not Used~~

add STAGGERED TEST BASIS L1

M5 Verify each CREVAS subsystem can maintain a positive pressure of ≥ 0.125 in. water gauge relative to the atmosphere and turbine building during the isolation mode of operation at a flow rate ≤ 1100 cfm.

[SR 3.7.3.3]

B. DELETED

C. Battery Room Ventilation

Battery room ventilation shall be operable on a continuous basis whenever specification 3.9.E is required to be satisfied.

1. From and after the date that one of the battery room ventilation systems is made or found to be inoperable, its associated battery shall be considered to be inoperable for purposes of specification 3.9.E.

4.11 (cont'd)

See ITS 3.3.7.1

3. Operability of the main control room air intake radiation monitor shall be tested once/3 months.

add ACTION F Note M6

LB1

~~4. Temperature transmitters and differential pressure switches shall be calibrated once per 24 months.~~

~~5. Main control room emergency ventilation air supply system capacity shall be tested once every 18 months to assure that it is ±10% of the design value of 1000 cfm.~~

B. DELETED

C. Battery Room Ventilation

Battery room ventilation equipment shall be demonstrated operable once/week.

1. When it is determined that one battery room ventilation system is inoperable, the remaining ventilation system shall be verified operable and daily thereafter.

2. Temperature transmitters and differential pressure switches shall be calibrated once per 24 months.

See CTS 3/4.11.C in this Section

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Amendment No. ~~48, 82, 126, 134, 148, 156, 231, 233~~, 269

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

DISCUSSION OF CHANGES (DOCs) TO THE CTS

ADMINISTRATIVE CHANGES

A1 In the conversion of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Current Technical Specifications (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 CTS 4.11.A.1.a, 4.11.A.1.b, 4.11.A.1.c, and 4.11.A.2, describe requirements for the periodic verification of the filter trains associated with the Control Room Emergency Ventilation Air Supply (CREVAS) System. ITS SR 3.7.3.2 will require performing similar testing of the CREVAS System filter trains; however, specified technical requirements for this testing will be contained in the Ventilation Filter Testing Program (VFTP) described in ITS 5.5.8, Ventilation Filter Testing Program (VFTP). This change in the location of the technical requirements for CREVAS system filter testing to ITS 5.5.8 is in accordance with the format of NUREG-1433, Revision 1. Any technical changes to the requirements for CREVAS System filter testing will be addressed with the Discussion of Changes for ITS 5.5.8. ITS SR 3.7.3.2 is included in ITS 3.7.3 to clarify that the tests specified in the VFTP must be completed and acceptable for the CREVAS System to be Operable. Moving details for performing required filter testing to ITS 5.5.8 is an administrative change. | AMD 264

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.11.A.1 requires both of the control room emergency ventilation air supply fans and fresh air filter trains to be available whenever the reactor coolant is greater than 212°F and when fuel is handled. ITS 3.7.3 Applicability is during MODES 1, 2 and 3, during the movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS and during operations with a potential of draining the reactor vessel (OPDRVs). The ITS Applicability covers additional modes of operation.

The CTS requirement to be Operable when the reactor coolant temperature is greater than 212°F only covers ITS MODES 1, 3 and during part of MODE 2. Therefore, the addition of MODE 2 (up to 212°F) is an additional requirement not explicitly established in the CTS. This added requirement will ensure that if the reactor coolant temperature is below 212°F (MODE 4), both CREVAS subsystems are OPERABLE before placing the plant in Startup (MODE 2). In addition, this change adds the

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 (continued)

requirement for the CREVAS System to be Operable during CORE ALTERATIONS and OPDRVs. These modes of operation are implied in the CTS since CTS 3.11.A.3 requires core alterations and OPDRVS to be suspended when two CREVAS subsystems are inoperable for 3 days but there is no explicit requirement in the CTS which will limit these operations if only one subsystem were inoperable. If one subsystem is inoperable CTS 3.11.A.1 will allow 14 days of operation. After these 14 days, the CTS will require entry into CTS 3.0.C which will require the plant to be in COLD SHUTDOWN in 24 hours. CTS 3.0.C provides no limitations on CORE ALTERATIONS or OPDRVs therefore these activities may continue without restrictions.

This change is considered more restrictive on plant operations since it expands the Applicability requirements of the CREVAS subsystems but is necessary to minimize the consequences of DBAs and OPDRVs during the conditions in which the events may occur. This change is consistent with NUREG-1433, Revision 1.

M2 CTS 4.11.A.1 requires each control room emergency ventilation air supply fans and dampers to be tested for operability every 3 months. ITS SR 3.7.3.1 requires the operation of each CREVAS subsystem every 92 days for a time period of greater than or equal to 15 minutes. Since the new explicit requirement will require a test for ≥ 15 minutes of each CREVAS subsystem which includes testing of the air handling unit fans and recirculation exhaust fans in addition to the air supply booster fans and dampers, this change is considered more restrictive. A test duration of ≥ 15 minutes is necessary to demonstrate all active components are OPERABLE. The explicit requirement to test each CREVAS subsystem (including air handling unit, recirculation exhaust fan, dampers and valves) is consistent with current test practices.

M3 CTS 3.11.A.1 allows one emergency ventilation air supply fan and or filter (CREVAS subsystem) to be inoperable for 14 days. After this 14 day period, CTS 3.0.C must be entered since no specific default action exists in CTS 3.11.A for one inoperable subsystem and therefore the plant must be placed in COLD SHUTDOWN within 24 hours. CTS 3.11.A.3 does not apply since it is concerned with the inoperability of two CREVAS subsystems.

The allowance in CTS 3.11.A.1 that one emergency ventilation air supply fan and or filter may be out of service for 14 days has been reduced to 7 days as reflected in ITS 3.7.3 ACTION A. If this Completion Time is not satisfied and the plant is operating in MODES 1, 2 and 3, ITS 3.7.3

TECHNICAL CHANGES - MORE RESTRICTIVE

M3 (continued)

Required Actions C.1 and C.2 will require the plant to be in MODE 3 in 12 hours and in MODE 4 in 36 hours respectively. This change is considered more restrictive on operation since the overall time to operate in MODES 1, 2 and 3 have been significantly reduced.

In addition, if this new Completion Time (7 days) is not satisfied and the plant is moving irradiated fuel in the secondary containment, performing CORE ALTERATIONS, or performing OPDRVs, ITS 3.7.3 ACTION D will require the placement of the OPERABLE subsystem in the isolate mode of operation (Required Action D.1) or to suspend movement of irradiated fuel assemblies in the secondary containment, suspend CORE ALTERATIONS and to initiate action to suspend OPDRVs (ITS 3.7.3 Required Actions D.2.1, D.2.2, and D.2.3, respectively) immediately. The suspension of these activities shall not preclude completion of movement to a safe position. These proposed ACTIONs are considered more restrictive but are based on a low probability of a DBA, or OPDRV to occur during this time period. The option to place a subsystem in the isolate mode will ensure that the remaining subsystem is OPERABLE, and that any active failure will be readily detected. A Note has been included to proposed ACTION D), which provides an exception to CTS 3.0.C (ITS LCO 3.0.3) if the Required Actions can not be met. This clarification was necessary because defaulting to LCO 3.0.3 would require the reactor to be shutdown but would not require the suspension of the activities that have the potential for releasing radioactivity that might require isolation of the control room and operation of CREVAS in the isolate mode. Therefore not allowing ITS 3.7.3, Condition D to be bypassed by entry into LCO 3.0.3 will put the plant in a condition of minimum risk by requiring the suspension of the activities that have the potential for releasing radioactivity namely handling of irradiated fuel. The addition of ACTION D is considered more restrictive since no ACTIONS exist which will limit these activities with one inoperable CREVAS subsystem since CTS 3.0.C does not provide any limitations on fuel handling, CORE ALTERATIONS or OPDRVs.

These changes are necessary to ensure the time operating with one subsystem inoperable is limited. These changes are consistent with NUREG-1433, Revision 1.

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TECHNICAL CHANGES - MORE RESTRICTIVE (continued)

M4 CTS 3.11.A.3 allows reactor or refueling operations to continue for 3 days with both control room emergency ventilation subsystems inoperable. After this time period the plant must be in a cold shutdown within 24 hours and any handling of irradiated fuel, core alterations, and operations with a potential for draining the reactor vessel shall be suspended as soon as practicable.

ITS LCO Note provides an intermittent allowance to administratively open the control room boundary (which impacts both division of CREVAS). Additionally, ITS 3.7.3, Condition B, allows 24 hours to restore an inoperable control room boundary in MODES 1, 2, and 3. Failing to restore the boundary following these provisions, Condition C is required to be entered and the plant is required to be in cold shutdown within 36 hours. These changes reflect more restrictive allowances than the CTS 3-day allowance.

With inoperabilities impacting both CREVAS divisions for reasons other than Condition B, ITS 3.7.3 does not allow any time and entry into LCO 3.0.3 (ACTION E) will be required if operating in MODES 1, 2, and 3. In addition, if handling irradiated, CORE ALTERATION, or performing OPDRVs, ITS 3.7.3 ACTION F will require the immediate suspension of these operations. Since the 3 day allowance has been deleted this change is considered more restrictive but safer on plant operation since it minimizes the time the plant can operate with both subsystems inoperable.

Also, consistent with TSTF-287 Reviewer's Note (Bases Insert for Required Action B.1), JAFNPP commits to developing written procedures describing the compensatory measures to be taken in the event of an intentional or unintentional entry into ACTION B.

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M5 CTS 4.11.A.5 requires the main control room emergency ventilation air supply system (know as the CREVAS System in the ITS) capacity to be tested every 18 months to assure that it is within 10% of the design value of 1000 cfm. ITS SR 3.7.3.3 will require a verification that each CREVAS subsystem can maintain a positive pressure of ≥ 0.125 inches of water gauge relative to atmosphere and turbine building during the isolate mode of operation at a flow rate of ≤ 1100 cfm every 18 months on a STAGGERED TEST BASIS (L1). This change is more restrictive since the proposed Surveillance is more explicit with respect to test acceptance criteria (0.125 inches of water gauge relative to atmosphere and turbine building). This added requirement will ensure the integrity of the control room and the assumed inleakage rates of potentially contaminated air is within design values. This change is consistent with NUREG-1433, Revision 1.

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M6 CTS 3.11.A.3 requires the suspension of any handling of irradiated fuel, whenever both control room emergency ventilation systems are inoperable. If this action cannot be completed LCO 3.0.C must be entered and a plant shutdown is required. A Note has been included to CTS 3.11.A.3 (ITS 3.7.3 ACTION E Note), which provides an exception to current LCO 3.0.C (ITS LCO 3.0.3) if the Required Actions can not be met. This clarification was necessary because defaulting to LCO 3.0.3 would require the reactor to be shutdown but would not require the suspension of the activities that have the potential for releasing radioactivity that might require isolation of the control room and operation of the CREVAS System in the isolate mode. Therefore, not allowing ITS 3.7.3, Condition E to be bypassed by entry into LCO 3.0.3 will put the plant in a condition of minimum risk by requiring the suspension of the activities that have the potential for releasing radioactivity namely handling of irradiated fuel.

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The details of CTS 3.11.A.1 concerning the components of the Main Control Room Emergency Ventilation Subsystem (emergency ventilation air supply fans and fresh air filter trains) required to be OPERABLE are proposed to be relocated to the Bases. The requirement in the proposed LCO to have two subsystems OPERABLE and the definition of OPERABILITY suffices. Therefore, these details are not required to be included in the ITS to provide adequate protection of the public health and safety. Changes to the Bases will be controlled by the provisions of the proposed Bases Control Program described in Chapter 5 of the Technical Specifications.

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TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC) (continued)

LB1 The requirement in CTS 4.11.A.4 to calibrate the temperature transmitters and differential pressure switches every 24 months is proposed to be relocated to the Technical Requirements Manual (TRM). These instruments are not necessarily required to ensure the proper operation of the Control Room Air Conditioning (AC) System in both the CREVAS mode of operation (covered in ITS LCO 3.7.3) or the cooling mode of operation (ITS 3.7.4). The instrumentation associated with this Surveillance performs the following functions:

Description	Quantity	Functions
Control Room (CR) Exhaust Fan discharge differential pressure switch	2	Start the standby exhaust fan in the event that the on line unit fails.
CR Supply Air Handling Unit (AHU) discharge differential pressure switch	2	Start the standby AHU.
CREVAS fan inlet differential pressure switch	2	Start standby CREVAS fan.
CR Supply filter (F-5/F-17) differential pressure indicator switch	2	Indicate and alarm a degradation in the associated filter.
CREVAS filter differential pressure indication	8	Indicate and alarm a degradation in the associated CREVAS filter.
CR Supply AHU (3A/3B) inlet temperature control loop	1 loop	Modulates the damper control during normal plant operation.
CR Atmosphere temperature control loop	4 loops	Provide cooling and heating control during isolate and normal operation. (control cooling water to AHU coils or control heaters)
CR Exhaust Fan inlet temperature switch	2	Start the standby exhaust fan, AHU, chiller pump, places dampers (105, 109 and 110) in isolate mode position, and prevents heater operation (E7 & 8). Provide alarm at > 98 F.

The listed instrumentation either starts components in the redundant division due to problem or failure in the operating division, provides an alarm, provides damper modulation during normal plant operation, or provides temperature control during normal and isolate modes (control of cooling water to AHU coils and heater control) of operation. The Control Room AC System is a manually initiated system for both the isolate and cooling mode. If a DBA were to occur, action will be required to start the CREVAS subsystem and align the associated emergency service water (ESW) subsystem to the available Air Handling

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LB1 (continued)

Unit (AHU). Assuming the failure of one division, only one AHU may be available. Therefore, since the accident sequence requires manual initiation and since only one subsystem may be available the features which starts the redundant subsystem is not considered to be required for Operability. The automatic temperature control functions of the heaters and AHU coils are not considered to be safety related functions since the heaters are not redundant (only one heater is associated with each area of the control room) and since the safety related cooling function of the AHU is considered to be satisfied by manual alignment to the ESW System. In addition, NUREG-1433 does not specify alarm-only equipment to be Operable to support the Operability of a system or component. The availability of indications, monitoring instruments, and alarms are normally addressed by plant operating procedures and policies. These procedures also control compensatory actions if the instrumentation is inoperable. Therefore, this instrumentation along with supporting surveillances are proposed to be relocated to the TRM and implemented through plant procedures. The proposed LCO, Actions and Surveillances in proposed ITS 3.7.3 and 3.7.4 and the definition of OPERABILITY are sufficient to ensure the habitability requirements of the control room. Therefore, this detail is not required to be included in the ITS to provide adequate protection of the public health and safety. At ITS implementation, the relocated requirements will be incorporated by reference into the UFSAR. Any changes to this relocated requirement in the TRM will be controlled by the provisions of 10 CFR 50.59.

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TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 4.11.A.5 requires the main control room emergency ventilation air supply system (know as the CREVAS System in the ITS) capacity to be tested every 18 months to assure that it is within 10% of the design value of 1000 cfm. ITS SR 3.7.3.3 will require a verification that each CREVAS subsystem can maintain a positive pressure of ≥ 0.125 inches of water gauge relative to atmosphere and turbine building during the isolate mode of operation (M5) at a flow rate of ≤ 1100 cfm every 18 months on a STAGGERED TEST BASIS. Both CREVAS subsystems are currently tested every 18 months, therefore this change is considered less restrictive. The purpose of the test is to ensure the integrity of the control room and the assumed inleakage rates of potentially contaminated air is within design values. The operation of any one CREVAS subsystem can validate this requirement. With a CREVAS subsystem flow rate of ≤ 1100 cfm and with the positive pressure maintained the control room integrity is considered to be met. Therefore, changing the flow rate to < 1100 cfm is acceptable. In addition, the Ventilation Filter Testing Program in ITS 5.5.8 will ensure that each CREVAS subsystem flow is within +/- 10% of the design flow rate. Therefore the proposed requirements are considered acceptable and consistent with industry practice.

TECHNICAL CHANGES - RELOCATIONS

None

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

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 proposes to only test one CREVAS subsystem every 18 months to ensure the integrity of the control room enclosure and changes the required flow rate to be ≤ 1100 cfm instead of 1000 cfm ± 10%. The change in testing frequency and flow rate will not increase the probability of an accident because the CREVAS System is not assumed in the initiation of any analyzed event. The role of the CREVAS System is in the mitigation of accident consequences. The consequences of an accident are not increased because the proposed testing will still ensure the integrity of the control room enclosure. Only one CREVAS subsystem is necessary to demonstrate the integrity of the control room enclosure. The requirement to maintain a positive pressure of ≥ 0.125 inches of water gauge relative to atmosphere and turbine building (M5) during the isolate mode of operation at a flow rate of ≤ 1100 cfm is sufficient to ensure the integrity of the control room. In addition, the Ventilation Filter Testing Program in ITS 5.5.8 will ensure that each CREVAS subsystem flow is within +/- 10% of the design flow rate. 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?

   The proposed change will not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, modified, tested, or inspected. The proposed change still ensures the integrity of the control room enclosure. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

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

   This change proposes to only test one CREVAS subsystem every 18 months to ensure the integrity of the control room enclosure and changes the required flow rate to be ≤ 1100 cfm instead of 1000 cfm ± 10%. The role of the CREVAS System is in the mitigation of accident consequences. The consequences of an accident are not increased because the proposed testing will ensure the integrity of the control room enclosure is maintained. The requirement to maintain a positive pressure of ≥ 0.125 inches of water gauge relative to atmosphere and turbine building (M5) during the isolate mode of operation at a flow rate of ≤ 1100 cfm is sufficient to ensure the integrity of the control room. In addition, the Ventilation Filter Testing Program in ITS 5.5.8 will ensure that each CREVAS subsystem flow is within +/- 10% of the design flow rate. This change provides a benefit of enhanced CREVAS System reliability as a result of potentially reduced wear and tear on CREVAS fans and valves due to reduced testing. Therefore, this change will not reduce the margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

MARKUP OF NUREG-1433, REVISION 1
SPECIFICATION

PA1 PA2 PA1 TSTF 287

3.7 PLANT SYSTEMS

3.7.3 Main Control Room Environmental Control (MCREC) System

Emergency Ventilation Air Supply (CREVAS) System

[3.11.A.1] [M4] LCO 3.7.3 Two (MCREC) CREVAS subsystems shall be OPERABLE.

NOTE: The main control room boundary may be opened intermittently under administrative control. TA1

[3.11.A.1] [M1] APPLICABILITY: ~~MODES 1, 2, and 3,~~
During movement of irradiated fuel assemblies in the (secondary) containment, (PA1)
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS (CREVAS — PA1)

	CONDITION	REQUIRED ACTION	COMPLETION TIME
[3.11.A.1] [M3]	A. One (MCREC) CREVAS subsystem inoperable.	A.1 Restore (MCREC) CREVAS subsystem to OPERABLE status.	7 days
[M3]	~~B.~~ C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	~~B~~ C.1 Be in MODE 3. AND ~~B~~ C.2 Be in MODE 4.	12 hours 36 hours
[M4]	B. Two (MCREC) CREVAS (PA1) subsystems inoperable due to inoperable control room boundary in MODE(S) 1, 2, ~~and~~ or 3.	B.1 Restore control room boundary to OPERABLE status.	24 hours

TA1 TSTF 287

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	------------NOTE------------ LCO 3.0.3 is not applicable. ----------------------------	
	D.1 ------NOTE------ Place in toxic gas protection mode if automatic transfer to toxic gas protection mode is inoperable. -------------------- Place OPERABLE CREVAS subsystem in isolate mode.	Immediately
	OR	
	D.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND	
	D.2.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	D.2.3 Initiate action to suspend OPDRVs.	Immediately
E. Two CREVAS subsystems inoperable in MODE 1, 2, or 3 for reasons other than Condition B.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two [MCREC] subsystems inoperable during movement of irradiated fuel assemblies in the [secondary] containment, during CORE ALTERATIONS, or during OPDRVs.	------NOTE------ LCO 3.0.3 is not applicable. -------------------	
	F.1 Suspend movement of irradiated fuel assemblies in the [secondary] containment.	Immediately
	AND	
	F.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.7.3.1	Operate each [MCREC] subsystem for [≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	31 days
SR 3.7.3.2	Perform required [MCREC] filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.4.3	Verify each [MCREC] subsystem actuates on an actual or simulated initiation signal.	[18] months
SR 3.7.4.4	Verify each [MCREC] subsystem can maintain a positive pressure of ≥ [0.1] inches water gauge relative to the [turbine building] during the [pressurization] mode of operation at a flow rate of ≤ [400] cfm.	[18] months on a STAGGERED TEST BASIS

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.7.3 - CONTROL ROOM EMERGENCY VENTILATION AIR SUPPLY (CREVAS) SYSTEM

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The bracketed Frequency in ITS SR 3.7.3.3 has been removed and the 18 month Frequency maintained in accordance with CTS 4.11.A.4.

CLB2 The Frequency in ITS SR 3.7.3.1 has been changed from 31 days to 92 days consistent with the current requirements in CTS 4.11.A.1. This Frequency is considered adequate to ensure system availability and reliability.

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

PA1 The brackets have been removed and the proper plant specific nomenclature has been provided.

PA2 ISTS 3.7.4 has been renumbered as ITS 3.7.3 to reflect deletion of ISTS 3.7.3. Surveillances have been renumbered as a result of this change.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 ISTS 3.7.4 Required Action C.1 Note concerning the toxic gas protection mode has been deleted because the JAFNPP CREVAS System does not have an automatic toxic gas protection mode.

DB2 The bracketed details in ITS SR 3.7.3.1 concerning those systems with heaters has been deleted. The CREVAS System does not have any heaters installed; thus, the appropriate run time is 15 minutes.

DB3 The JAFNPP CREVAS System does not actuate automatically therefore ISTS SR 3.7.4.3 is deleted and the subsequent surveillances renumbered, as applicable.

DB4 The brackets have been removed and the proper plant specific design values/information provided.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler Number 287, Revision 5 have been incorporated into the revised Improved Technical Specifications. In addition, Condition B has been modified to be consistent with the writer's guide and the presentation of ITS Condition C and E. TSTF-287

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.7.3 - CONTROL ROOM EMERGENCY VENTILATION AIR SUPPLY (CREVAS) SYSTEM

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: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.7 PLANT SYSTEMS

B 3.7.4 Main Control Room Environmental Control (MCREC) System

BASES

BACKGROUND

The MCREC System provides a radiologically controlled environment from which the unit can be safely operated following a Design Basis Accident (DBA).

The safety related function of MCREC System includes two independent and redundant high efficiency air filtration subsystems for emergency treatment of recirculated air or outside supply air. Each subsystem consists of a demister, an electric heater, a prefilter, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section, a second HEPA filter, a booster fan, an air handling unit (excluding the condensing unit), and the associated ductwork and dampers. Demisters remove water droplets from the airstream. Prefilters and HEPA filters remove particulate matter, which may be radioactive. The charcoal adsorbers provide a holdup period for gaseous iodine, allowing time for decay.

The MCREC System is a standby system, parts of which also operate during normal unit operations to maintain the control room environment. Upon receipt of the initiation signal(s) (indicative of conditions that could result in radiation exposure to control room personnel), the MCREC System automatically switches to the pressurization mode of operation to prevent infiltration of contaminated air into the control room. A system of dampers isolates the control room, and a part of the recirculated air is routed through either of the two filter subsystems. Outside air is taken in at the normal ventilation intake and is mixed with the recirculated air before being passed through one of the charcoal adsorber filter subsystems for removal of airborne radioactive particles.

The MCREC System is designed to maintain the control room environment for a 30 day continuous occupancy after a DBA without exceeding 5 rem whole body dose or its equivalent to any part of the body. A single MCREC subsystem will pressurize the control room to about 0.1 inches water gauge to prevent infiltration of air from surrounding buildings. MCREC System operation in maintaining control

(continued)

(DB1)

INSERT BKGD

This filtered air is then mixed with recirculated air from one of the recirculation exhaust fans and then passed through one of two fans of the air handling units where it can be cooled before it is recirculated back to the control room. The cooling capability of the air handling units is not required to satisfy the requirements of this Specification.

BASES

BACKGROUND (continued)

room habitability is discussed in the FSAR, Chapters [6] and [15], (Refs. 1 and 2, respectively).

APPLICABLE SAFETY ANALYSES

The ability of the [MCREC] System to maintain the habitability of the control room is an explicit assumption for the safety analyses presented in the FSAR, Chapters [6] and [15] (Refs. 1 and 2, respectively). The pressurization mode of the [MCREC] System is assumed to operate following a loss of coolant accident, fuel handling accident, main steam line break, and control rod drop accident, as discussed in the FSAR, Section [6.4.1.2.2] (Ref. 3). The radiological doses to control room personnel as a result of the various DBAs are summarized in Reference 3. No single active or passive failure will cause the loss of outside or recirculated air from the control room.

The [MCREC] System satisfies Criterion 3 of the NRC Policy Statement.

LCO

Two redundant subsystems of the [MCREC] System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in exceeding a dose of 5 rem to the control room operators in the event of a DBA.

The [MCREC] System is considered OPERABLE when the individual components necessary to control operator exposure are OPERABLE in both subsystems. A subsystem is considered OPERABLE when its associated:

a. Fan is OPERABLE;

b. HEPA filter and charcoal adsorbers are not excessively restricting flow and are capable of performing their filtration functions; and

c. Heater, demister, ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained.

In addition, the control room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors.

(continued)

such that the pressurization limit of SR 3.7.3.3 can be met. However, it is acceptable for access doors to be open for normal control room entry and exit, and not consider it to be a failure to meet the LCO.

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TA1

INSERT LCO

The LCO is modified by a Note allowing the main control room boundary to be opened intermittently under administrative controls. For entry and exit through doors the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the main control room. This individual will have a method to rapidly close the opening when a need for main control room isolation is indicated.

BASES (continued)

APPLICABILITY

In MODES 1, 2, and 3, the [MCREC] System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced because of the pressure and temperature limitations in these MODES. Therefore, maintaining the [MCREC] System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

a. During operations with potential for draining the reactor vessel (OPDRVs);

b. During CORE ALTERATIONS; and

c. During movement of irradiated fuel assemblies in the [secondary] containment.

ACTIONS

A.1

With one [MCREC] subsystem inoperable, the inoperable [MCREC] subsystem must be restored to OPERABLE status within 7 days. With the unit in this condition, the remaining OPERABLE [MCREC] subsystem is adequate to perform control room radiation protection. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced [MCREC] System capability. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem can provide the required capabilities.

B.1 and B.2

In MODE 1, 2, or 3, if the inoperable [MCREC] subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

(continued)

TA

INSERT B.1

B.1

If the main control room boundary is inoperable in MODES 1, 2, and 3, the CREVAS subsystems cannot perform their intended functions. Actions must be taken to restore an OPERABLE main control room boundary within 24 hours. During the period that the main control room boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the main control room boundary.

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BASES

ACTIONS (continued)

C.1, C.2.1, C.2.2, and C.2.3

The Required Actions of Condition C are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

LCO 3.0.3 is not applicable when in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3,

During movement of irradiated fuel assemblies in the [secondary] containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable [MCREC] subsystem cannot be restored to OPERABLE status within the required Completion Time, the OPERABLE [MCREC] subsystem may be placed in the pressurization mode. This action ensures that the remaining subsystem is OPERABLE, that no failures that would prevent automatic actuation will occur, and that any active failure will be readily detected.

Required Action C.1 is modified by a Note alerting the operator to [place the system in the toxic gas protection mode if the toxic gas automatic transfer capability is inoperable].

An alternative to Required Action C.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the [secondary] containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and the subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

D.1

If both [MCREC] subsystems are inoperable in MODE 1, 2, or 3, for reasons other than an inoperable control room boundary (i.e., Condition B) the [MCREC] System may not be capable of performing

(continued)

BASES

ACTIONS

E.1 (continued)

the intended function and the unit is in a condition outside the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

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

The Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

During movement of irradiated fuel assemblies in the [secondary] containment, during CORE ALTERATIONS, or during OPDRVs, with two MCREC subsystems inoperable, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the [secondary] containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, actions must be initiated immediately to suspend OPDVRs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.4.1

This SR verifies that a subsystem in a standby mode starts on demand and continues to operate. Standby systems should be checked periodically to ensure that they start and function properly. As the environmental and normal operating conditions of this system are not severe, testing each subsystem once every month provides an adequate check on this system. Monthly heater operation dries out any

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.4.1 (continued)

moisture that has accumulated in the charcoal as a result of humidity in the ambient air. [Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system. Furthermore, the 31 day Frequency is based on the known reliability of the equipment and the two subsystem redundancy available.

SR 3.7.4.2

This SR verifies that the required [MCREC] testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [MCREC] filter tests are in accordance with Regulatory Guide 1.52 (Ref. 8). The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.4.3

This SR verifies that on an actual or simulated initiation signal, each [MCREC] subsystem starts and operates. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.7.1.5 overlaps this SR to provide complete testing of the safety function. The [18] month Frequency is specified in Reference 5.

SR 3.7.4.4

This SR verifies the integrity of the control room enclosure and the assumed inleakage rates of potentially contaminated air. The control room positive pressure, with respect to potentially contaminated adjacent areas (the turbine building), is periodically tested to verify proper function of the [MCREC] System. During the emergency mode of operation, the [MCREC] System is designed to slightly pressurize the control room ≥ [0.1] inches water gauge positive pressure with respect to the turbine building to

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.4.6 (continued)

prevent unfiltered inleakage. The MCREC System is designed to maintain this positive pressure at a flow rate of ≤ [400] cfm to the control room in the pressurization mode. The Frequency of [18] months on a STAGGERED TEST BASIS is consistent with industry practice and other filtration systems SRs.

REFERENCES

1. FSAR, Chapter [6].
2. FSAR, Chapter [9].
3. FSAR, Chapter [15].
4. FSAR, Section [6.4.1.2.2].
5. Regulatory Guide 1.52, Revision 2, March 1978.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.7.3 - CONTROL ROOM EMERGENCY VENTILATION AIR SUPPLY (CREVAS) SYSTEM

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 The bracketed Frequency in ITS SR 3.7.3.3 has been removed and the 18 month Frequency maintained in accordance with CTS 4.11.A.4.

CLB2 The Frequency in ITS SR 3.7.3.1 has been changed from 31 days to 92 days consistent with the current requirement in CTS 4.11.A.1. This Frequency is considered adequate to ensure system availability and reliability. The Bases for SR 3.7.3.1 has been modified as required to reflect this change.

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

PA1 The brackets have been removed and the proper plant specific nomenclature has been provided.

PA2 ISTS 3.7.4 has been renumbered as ITS 3.7.3 to reflect deletion of ISTS 3.7.3. Surveillances have been renumbered as a result of this change.

PA3 Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the plant specific nomenclature.

PA4 Typographical/grammatical error corrected.

PA5 Editorial change made for enhanced clarity or to be consistent with similar statements in other places in the Bases.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 Changes have been made to reflect the JAFNPP specific components of the CREVAS system, its flow path and mode of operation.

DB2 The detail in the Applicable Safety Analyses concerning single active or passive failures has been deleted since the appropriate assumptions concerning the single failure analysis are clearly identified in the referenced document (UFSAR, Section 14.8.2).

DB3 Changes have been made to reflect the specific analysis description.

DB4 The brackets have been removed and the proper plant specific design information provided.

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.7.3 - CONTROL ROOM EMERGENCY VENTILATION AIR SUPPLY (CREVAS) SYSTEM

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB5 The brackets have been removed and the proper plant specific references provided. References have been renumbered, where applicable.

DB6 The discussion of ISTS 3.7.4 Required Action C.1 Note concerning the toxic gas protection mode has been deleted because the JAFNPP CREVAS System does not have an automatic toxic gas protection mode.

DB7 ITS SR 3.7.3.1 has been revised accordingly to reflect the plant specific design. The CREVAS System does not have any heaters installed; thus, the appropriate run time is 15 minutes.

DB8 The JAFNPP CREVAS System does not actuate automatically therefore ISTS SR 3.7.4.3 is deleted and the subsequent surveillances renumbered, as applicable.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler Number 287, Revision 5 have been incorporated into the revised Improved Technical Specifications. In addition, the Bases for Required Action B.1 have been modified to be consistent with the writer's guide and the presentation of the Bases for Required Actions C.1, C.2, and E.1. TSTF-287

TA2 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler Number 362, Revision 0 have been incorporated into the revised Improved Technical Specifications. In addition, Reference 5 has been deleted since the TSTF deleted the only reference to Regulatory Guide 1.52. TSTF-362

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. References have been renumbered, where applicable.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.3

Control Room Emergency Ventilation Air Supply (CREVAS) System

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Ventilation Air Supply (CREVAS) System

LCO 3.7.3 Two CREVAS subsystems shall be OPERABLE.

-------------------------NOTE-------------------------
The main control room boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREVAS subsystem inoperable.	A.1 Restore CREVAS subsystem to OPERABLE status.	7 days
B. Two CREVAS subsystems inoperable due to inoperable control room boundary in MODE 1, 2, or 3.	B.1 Restore control room boundary to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3. **AND** C.2 Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	------------NOTE------------ LCO 3.0.3 is not applicable. ----------------------------	
	D.1 Place OPERABLE CREVAS subsystem in isolate mode.	Immediately
	<u>OR</u>	
	D.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	D.2.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	D.2.3 Initiate action to suspend OPDRVs.	Immediately
E. Two CREVAS subsystems inoperable in MODE 1, 2, or 3 for reasons other than Condition B.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

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ACTIONS (continued)

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CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two CREVAS subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	------------NOTE------------ LCO 3.0.3 is not applicable. ----------------------------	
	F.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	F.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each CREVAS subsystem for ≥ 15 minutes.	92 days
SR 3.7.3.2	Perform required CREVAS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.3.3	Verify each CREVAS subsystem can maintain a positive pressure of ≥ 0.125 inches water gauge relative to atmosphere and turbine building during the isolate mode of operation at a flow rate of ≤ 1100 cfm.	18 months on a STAGGERED TEST BASIS

B 3.7 PLANT SYSTEMS

B 3.7.3 Control Room Emergency Ventilation Air Supply (CREVAS) System

BASES

BACKGROUND

The CREVAS System; a portion of the Control Room Air Conditioning (AC) System provides a radiologically controlled environment from which the plant can be safely operated following a Design Basis Accident (DBA).

The safety related function of the CREVAS System includes two redundant high efficiency air filtration subsystems for emergency treatment of outside supply air. Each subsystem consists of a prefilter, a high efficiency particulate air (HEPA) filter, two activated charcoal adsorber sections in series, a second HEPA filter, an emergency booster fan, an air handling unit (excluding the condensing unit), a recirculation exhaust fan and the associated ductwork and dampers. Prefilters and HEPA filters remove particulate matter, which may be radioactive. The charcoal adsorbers provide a holdup period for gaseous iodine, allowing time for decay.

The CREVAS System is a standby system, parts of which also operate during normal plant operations to maintain the control room environment. Upon occurrence of a DBA or receipt of an alarm from a radiation monitor installed in the control room ventilation intake duct (indicative of conditions that could result in radiation exposure to control room personnel), the CREVAS System is manually placed in the isolate mode of operation to prevent infiltration of contaminated air into the control room. A system of dampers isolates the control room. Outside air is taken in at either the primary or secondary ventilation intake and is passed through one of the charcoal adsorber filter subsystems for removal of airborne radioactive particles. This filtered air is then mixed with recirculated air from one of the recirculation exhaust fans and then passed through one of two fans of the air handling units where it can be cooled before it is recirculated back to the control room. The cooling capability of the air handling units is not required to satisfy the requirements of this Specification.

(continued)

BASES

BACKGROUND (continued)

The CREVAS System is designed to maintain the control room environment for a 31 day continuous occupancy after a DBA without exceeding 5 rem whole body dose or its equivalent to any part of the body. A single CREVAS subsystem will pressurize the control room to ≥ 0.125 inches water gauge above the Turbine Building and outside atmosphere and ≥ 0.0 inches water guage above other areas to prevent infiltration of air from surrounding buildings. CREVAS System operation in maintaining control room habitability is discussed in the UFSAR, Sections 9.9.3.11 and 14.8.2, (Refs. 1 and 2, respectively).

APPLICABLE SAFETY ANALYSES

The ability of the CREVAS System to maintain the habitability of the control room is an explicit assumption for the safety analyses presented in the UFSAR, Chapters 6 and 14 (Refs. 3 and 4, respectively). The isolate mode of the CREVAS System is assumed to operate following a loss of coolant accident, refueling accident, main steam line break, and control rod drop accident, as discussed in the UFSAR, Section 14.8.2 (Ref. 2). The radiological doses to control room personnel as a result of the various DBAs are summarized in Reference 2.

The CREVAS System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii) (Ref. 5).

LCO

Two redundant subsystems of the CREVAS System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in exceeding a dose of 5 rem to the control room operators in the event of some DBAs.

The CREVAS System is considered OPERABLE when the individual components necessary to control operator exposure are OPERABLE in both subsystems. A subsystem is considered OPERABLE when its associated:

a. Fans are OPERABLE (i.e., emergency booster fan, one air handling unit fan, one recirculation exhaust fan);

(continued)

BASES

LCO (continued)

b. A prefilter, two HEPA filters and charcoal adsorbers are not excessively restricting flow and are capable of performing their filtration functions; and

c. Ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained.

In addition, the control room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors such that the pressurization limit of SR 3.7.3.3 can be met. However, it is acceptable for access doors to be open for normal control room entry and exit, and not consider it to be a failure to meet the LCO.

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The LCO is modified by a Note allowing the main control room boundary to be opened intermittently under administrative controls. For entry and exit through doors the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the main control room. This individual will have a method to rapidly close the opening when a need for main control room isolation is indicated.

APPLICABILITY

In MODES 1, 2, and 3, the CREVAS System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced because of the pressure and temperature limitations in these MODES. Therefore, maintaining the CREVAS System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

a. During operations with potential for draining the reactor vessel (OPDRVs);

b. During CORE ALTERATIONS; and

c. During movement of irradiated fuel assemblies in the secondary containment.

(continued)

BASES (continued)

ACTIONS

A.1

With one CREVAS subsystem inoperable, the inoperable CREVAS subsystem must be restored to OPERABLE status within 7 days. With the plant in this condition, the remaining OPERABLE CREVAS subsystem is adequate to perform control room radiation protection. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in a loss of CREVAS System capability. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem can provide the required capabilities.

B.1

If the main control room boundary is inoperable in MODE 1, 2, or 3, the CREVAS subsystems cannot perform their intended functions. Actions must be taken to restore an OPERABLE main control room boundary within 24 hours. During the period that the main control room boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the main control room boundary.

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(continued)

BASES

ACTIONS (continued)

C.1 and C.2

In MODE 1, 2, or 3, if the inoperable CREVAS subsystem or control room boundary cannot be restored to OPERABLE status within the associated Completion Time, the plant must be placed in a MODE that minimizes risk. To achieve this status, the plant must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

D.1, D.2.1, D.2.2, and D.2.3

LCO 3.0.3 is not applicable when in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition D are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable CREVAS subsystem cannot be restored to OPERABLE status within the required Completion Time, the OPERABLE CREVAS subsystem may be placed in the isolate mode. This action ensures that the remaining subsystem is OPERABLE, and that any active failure will be readily detected.

An alternative to Required Action D.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the plant in a condition that minimizes risk.

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(continued)

BASES

ACTIONS

D.1, D.2.1, D.2.2, and D.2.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and the subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

E.1

If both CREVAS subsystems are inoperable in MODE 1, 2, or 3 for reasons other than an inoperable control room boundary (i.e., Condition B), the CREVAS System may not be capable of performing the intended function and the plant is in a condition outside the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

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F.1, F.2, and F.3

LCO 3.0.3 is not applicable when in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODES 1, 2, or 3, the Required Actions of Condition F are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require a reactor shutdown.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, with two CREVAS subsystems inoperable, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the plant in a condition that minimizes risk.

(continued)

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BASES

ACTIONS

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

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.3.1

This SR verifies that a subsystem in a standby mode starts on demand and continues to operate. These subsystems should be checked periodically to ensure that they start and function properly. As the environmental and normal operating conditions of this system are not severe, testing each subsystem once every three months provides an adequate check on this system. Since the CREVAS System does not contain heaters, it need only be operated for ≥ 15 minutes to demonstrate the function of the system. The 92 day Frequency is based on the known reliability of the equipment and the two subsystem redundancy available.

SR 3.7.3.2

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This SR verifies that the required CREVAS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.3.3

This SR verifies the integrity of the control room enclosure and the assumed inleakage rates of potentially contaminated air. The control room positive pressure, with respect to potentially contaminated adjacent areas (outside and the turbine building), is periodically tested to verify proper function of the CREVAS System. During the isolate mode of operation, the CREVAS System is designed to slightly pressurize the control room ≥ 0.125 inches water gauge positive pressure with respect to outside and the turbine building to prevent unfiltered inleakage. The CREVAS System is designed to maintain this positive pressure at a flow rate of ≤ 1100 cfm to the control room in the isolate mode. The Frequency of 18 months on a STAGGERED TEST BASIS is consistent with industry practice and other filtration systems SRs.

REFERENCES

1. UFSAR, Section 9.9.3.11.
2. UFSAR, Section 14.8.2.
3. UFSAR, Chapter 6.
4. UFSAR, Chapter 14.
5. 10 CFR 50.36(c)(2)(ii).

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JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.4

Control Room Air Conditioning (AC) System

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: 3.7.4

Control Room Air Conditioning (AC) System

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

M1

Insert New Specification 3.7.4

Insert new Specification 3.7.4, "Control Room Air Conditioning (AC) System," as shown in the JAFNPP Improved Technical Specifications.

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.4

Control Room Air Conditioning (AC) System

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.7.4 - CONTROL ROOM AIR CONDITIONING (AC) SYSTEM

ADMINISTRATIVE CHANGES

None

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 ITS 3.7.4 is added which delineates specific requirements for operability of the Control Room Air Conditioning System. This system is necessary to assure the habitability of the control room in a post design basis accident environment. The new Specification requires two subsystems to be OPERABLE in MODES 1, 2 and 3; during the movement of irradiated fuel assemblies in the secondary containment; during CORE ALTERATIONS, and during operations with a potential for draining the reactor vessel (OPDRV). Appropriate ACTIONS and a Surveillance Requirement have been added. This change is consistent with the BWR Standard Technical Specifications, NUREG-1433, Revision 1 (i.e., Improved Standard Technical Specifications (ISTS)) and is necessary to ensure the appropriate equipment is Operable during a Design Basis Event.

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

None

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

None

TECHNICAL CHANGES - RELOCATIONS

None

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.4

Control Room Air Conditioning (AC) System

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.7.4 - CONTROL ROOM AIR CONDITIONING (AC) SYSTEM

TECHNICAL CHANGES- LESS RESTRICTIVE (SPECIFIC)

There are no plant specific less restrictive changes identified for this Specification.

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.4

Control Room Air Conditioning (AC) System

MARKUP OF NUREG-1433, REVISION 1
SPECIFICATION

PA1 PA2

3.7 PLANT SYSTEMS

3.7.4 Control Room Air Conditioning (AC) System

[M1] LCO 3.7.4 Two control room AC subsystems shall be OPERABLE.

[M1] APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One control room AC subsystem inoperable.	A.1	Restore control room AC subsystem to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1	Be in MODE 3.	12 hours
	AND		
	B.2	Be in MODE 4.	36 hours

(continued)

[M1] [PA1] [PA2]

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the [secondary] containment, during CORE ALTERATIONS, or during OPDRVs.	------------NOTE------------ LCO 3.0.3 is not applicable. ----------------------------	
	C.1 Place OPERABLE [control room AC] subsystem in operation.	Immediately
	OR	
	C.2.1 Suspend movement of irradiated fuel assemblies in the [secondary] containment.	Immediately
	AND	
	C.2.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	C.2.3 Initiate action to suspend OPDRVs.	Immediately
D. Two [control room AC] subsystems inoperable in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two control room AC subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	------------NOTE------------ LCO 3.0.3 is not applicable. ----------------------------	
	E.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND	
	E.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	E.3 Initiate actions to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.6.1	Verify each control room AC subsystem has the capability to remove the assumed heat load.	18 months

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IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.7.4

Control Room Air Conditioning (AC) System

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.7.4 - CONTROL ROOM AIR CONDITIONING (AC) SYSTEM

RETENTION OF EXISTING REQUIREMENT (CLB)

None

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

PA1 The brackets have been removed and the proper plant specific information has been provided.

PA2 ISTS 3.7.5 has been renumbered as ISTS 3.7.4 to reflect deletion of ISTS 3.7.3. The Surveillance has been renumbered as a result of this change.

PA3 Editorial change made to be consistent with other places in the Specifications.

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)

X1 The bracketed Surveillance Frequency of 18 months in ITS SR 3.7.4.1 has been removed and the Frequency changed to 24 months in conjunction with the current operating cycle. This proposed Frequency is considered adequate since significant degradation of the Control Room AC System is not expected over this time period.