SUMMARY OF CHANGES TO ITS SECTION 3.6

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.1-1 (as modified)	Revised MU to clearly show details of CTS Definition moved to ITS Bases.	Specification 3.6.1.1 CTS mark-up p 1 of 8
RAI 3.6.1.1-2 (as modified)	Revised CTS MU to show deletion of CTS 4.7.A.1 requirement to inspect interior surface of drywell and suppression chamber above water line every 24 months based on the inspection being required by Primary Containment Leakage Rate Testing Program three times in 10 years. Added DOC L3 and NSHC L3 for justification.	Specification 3.6.1.1 CTS mark-up p 7 of 8 DOCs LA2 and L3 (DOCs p 3 of 6 and 5 of 6) NSHC L3 (NSHCs p 5 of 6 and 6 of 6)
RAI 3.6.1.1-3	Revised CTS MU to more clearly reflect how drywell to suppression chamber vacuum breaker leak testing is performed (DOC M4), moved CTS 3.7.A.5.e to Bases (revised DOC LA3), revised ITS SR 3.6.1.1.2, and added NUREG JFD DB1.	Specification 3.6.1.1 CTS mark-up p 4 of 8 and 5 of 8 DOC M4 and LA3 (DOCs p 3 of 6 and 4 of 6) ITS mark-up p 3.6-2 JFD DB1 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-4 Retyped ITS p 3.6-2 Retyped ITS Bases p B 3.6-4 and B 3.6-5
RAI 3.6.1.1-4 (as modified) and TSTF-52 R3	TSTF addresses 10 CFR 50, Appendix J, Option B. Minor ITS changes to make text exactly the same as the TSTF, added NUREG and Bases JFDs to note adoption of TSTF.	Specification 3.6.1.1 ITS mark-up p 3.6-2 JFDs CLB1 (deleted) and TA1 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-1, B 3.6-2, B 3.6-4, and B 3.6-5 Bases JFDs CLB1 (deleted) and TA1 (Bases JFDs p 1 of 2 and 2 of 2) Retyped ITS p 3.6-2 Retyped ITS Bases p B 3.6-2
RAI 3.6.1.1-5	Removed portion of TSTF-196 (unapproved) that was left in Bases MU in error.	Specification 3.6.1.1 ITS Bases mark-up p B 3.6-1 Retyped ITS Bases p B 3.6-1

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.1-6 (as modified)	Revised NUREG MU to note that LPCI and Core Spray air operated testable check valve leakage test failure does not result in ITS SR 3.6.1.1.1 failure and added NUREG JFD CLB3. Added discussion in ITS SR 3.6.1.1.1 Bases to address same topic and added Bases JFD CLB4 since the air operated testable check valve leakage is not counted in La.	Specification 3.6.1.1 JFD CLB3 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-4 and B 3.6-5 Bases JFD CLB4 (Bases JFDs p 1 of 2) Retyped ITS p 3.6-2 Retyped ITS Bases p B 3.6-4 and B 3.6-5
RAI 3.6.1.2-1 (as modified)	Revisions address ITS ACTIONS Note to allows each air lock penetration to be addressed as a separate Condition entry. Replaced DOC A4 with DOC L5 and NSHC L5 for justification and evaluation of less restrictive change.	Specification 3.6.1.2 CTS mark-up p 3 of 4 DOCs A4 (deleted) and L5 (DOCs p 2 of 7 and 7 of 7) NSHC L5 (NSHCs p 9 of 10 and 10 of 10) ITS mark-up p 3.6-3
RAI 3.6.1.2-2 and TSTF-52 R3	TSTF addresses 10 CFR 50, Appendix J, Option B. Minor ITS changes to make text exactly the same as the TSTF, added NUREG and Bases JFDs to note adoption of TSTF.	Specification 3.6.1.2 ITS mark-up p 3.6-7 JFD CLB1 (deleted) (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-7, B 3.6-8, B 3.6-12 Bases JFDs CLB1 (deleted) and TA2 (Bases JFDs p 1 of 3 and 2 of 3) Retyped ITS Bases p B 3.6-12

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.2-3	Revised to show NUREG-1434, R1 (rather than 1433, R1) as the source since NUREG-1434 is based on a two drywell airlock design. Restored air lock physical description discussion in Bases Background to the "generic" words in NUREG Bases.	Specification 3.6.1.2 DOCs A1, A2, A5, M3, and L4 (DOCs p 1 of 7, 2 of 7, 3 of 7, 4 of 7, and 6 of 7) ITS mark-up p 3.6-3 through 3.6-8 JFDs PA3, PA4, DB1, and DB2 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-6 through B 3.6-14 Bases JFD PA6, PA7, DB4, X1 (Bases JFDs p 1 of 3, 2 of 3, and 3 of 3) Retyped ITS p 3.6-3 Retyped ITS Bases p B 3.6-6, B 3.6-8
RAI 3.6.1.2-5 and TSTF-17 R2	Revisions reflect TSTF R2 in place of R1. TSTF allows ITS SR 3.6.1.2-2 (for test of drywell air lock door interlocks) Frequency to be relaxed to 24 months and thus avoid challenge to Primary Containment Operability in MODE 1, 2, and 3. Revised JFDs to reflect R2 to TSTF.	Specification 3.6.1.2 ITS mark-up p 3.6-8 JFDs TA1 and TA2 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-13 and Insert Page B 3.6-13 Bases JFD TA1 (Bases JFDs p 2 of 3)
Editorial	Corrected DOC and JFD annotations which were in error. Corrected typographical errors in the retyped ITS Bases.	Specification 3.6.1.2 ITS mark-up p 3.6-3 ITS Bases mark-up p B 3.6-14 Bases JFD DB5 (Bases JFDs p 2 of 3) Retyped ITS Bases p B 3.6-7, B 3.6-9, and B 3.6-10
RAI 3.6.1.3-1 and TSTF-52 R3	TSTF-52, R3 addresses 10 CFR 50, Appendix J, Option B. Minor ITS changes to make text exactly the same as the TSTF, added NUREG and Bases JFDs to note adoption of TSTF-52, R3.	Specification 3.6.1.3 JFD TA4 (JFDs p 3 of 5) ITS Bases mark-up p B 3.6-31 Bases JFD TA4 (Bases JFDs p 4 of 6) Retyped ITS Bases p B 3.6-28

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.3-3	Deleted phrase "an actual or" in ITS SR 3.6.1.3-8 and revised associated MUs, DOCs and JFDs.	Specification 3.6.1.3 CTS mark-up p 5 of 9 DOC M2 (DOCs p 5 of 14) ITS mark-up p 3.6-16 JFD X5 (JFDs p 4 of 5) ITS Bases mark-up p B 3.6-29 Bases JFDs CLB8 and X5 (deleted) (Bases JFDs p 1 of 6 and 5 of 6) Retyped ITS p 3.6-14 Retyped ITS Bases p B 3.6-27
RAI 3.6.1.3-4 (as modified), RAI 3.6.1.3-8, and TSTF-207 R5	TSTF-207, R5 addresses extending the time allowed to restore MSIV leakage in excess of limits from 4 hours to 8 hours and extends restoration time for EFCVs to 72 hours. Changes are made to Condition statements and Completion Times. Other changes made to bring NUREG and Bases MUs into complete agreement with TSTF text to resolve RAI 3.6.1.3-8.	Specification 3.6.1.3 DOCs L3, L5, L10 (DOCs p 9 of 14, 10 of 14, 12 of 14) NSHC L10 (NSHCs p 15 of 22 and 16 of 22) ITS mark-up p 3.6-8, 3.6-10, 3.6-17 JFDs TA4, X1, and X8 (JFDs p 3 of 5 through 5 of 5) ITS Bases mark-up p B 3.6-18, B 3.6-20, and Insert Page B 3.6-22 Bases JFD TA5 and X12 (Bases JFDs p 4 of 6 and 6 of 6) Retyped ITS p 3.6-8, 3.6-9, 3.6-10, 3.6-11 Retyped ITS Bases p B 3.6-22

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.3-5 and TSTF-30 R3	Update from TSTF R2 to R3. Changes allow 72 hours to restore PCIVs to Operable status for single PCIV penetrations with closed systems.	**Specification 3.6.1.3** CTS mark-up p 6 of 9 NSHC L5 (NSHCs p 7 of 22 and 8 of 22) ITS mark-up p 3.6-10 JFD TA3 (JFDs p 3 of 5) ITS Bases mark-up p B 3.6-20, B 3.6-21, and Insert Page B 3.6-22 Bases JFD DB10 (Bases JFDs p 4 of 6) Retyped ITS p 3.6-10 Retyped ITS Bases p B 3.6-20, and B 3.6-22
RAI 3.6.1.3-6 and RAI 3.7.A-2	See Summary for Changes to CTS 3.7.A.3, RAI 3.7.A.3-2, below.	**Specification 3.6.1.3** ITS Bases mark-up p B 3.6-15, Insert Page B 3.6-15, and B 3.6-25 Retyped ITS Bases p B 3.6-15 and B 3.6-23
RAI 3.6.1.3-7 (as modified)	Revised CTS MU to change LPCI and CS testable check valve testing to per PCLRT Program (vice every 24 months). Added justification and evaluation in DOC L13 and NSHC L13. Revised NUREG and Bases to reflect change and added NUREG JFD X9 and Bases JFD X13.	**Specification 3.6.1.3** CTS mark-up p 7 of 9 DOC L13 (DOCs p 13 of 14 and 14 of 14) NSHC L13 (NSHCs p 21 of 22 and 22 of 22) ITS mark-up p 3.6-18 ITS Bases mark-up p B 3.6-31 Bases JFD X13 (Bases JFDs p 6 of 6)
RAI 3.6.1.3-9	Removed changes to Bases Background MU cited by NRC reviewer. Change was a minor editorial/language preference.	**Specification 3.6.1.3** JFD X9 (JFDs p 5 of 5) ITS Bases mark-up p B 3.6-14 Retyped ITS Bases p B 3.6-14
RAI 3.6.1.3-10	Removed minor change to ACTIONS Bases MU cited by NRC reviewer. Change created an inconsistency with other parts of Bases.	**Specification 3.6.1.3** ITS Bases mark-up p B 3.6-18 Retyped ITS Bases p B 3.6-18

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.3-11 (as modified)	Removed Action C.1, Action C.2, SR 3.6.1.3.2 and SR 3.6.1.3.3 Bases MU changes cited by NRC reviewer. Changes were a minor editorial/language preferences.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-21 Retyped ITS p 3.6-14 Retyped ITS Bases p B 3.6-21, B 3.6-24, and B 3.6-25
RAI 3.6.1.3-12	Removed Action C.1 and Action C.2 Bases MU changes cited by NRC reviewer. Change had created a duplication of other Bases text.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-21
RAI 3.6.1.3-13 (as modified)	Deleted Bases JFD X10, revised ITS SR 3.6.1.3-10 Bases MU by changing X10 annotation to PA3 and revised Bases JFD PA3 to include reference to ITS SR 3.6.1.3-10 Bases MU.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-31 Bases JFDs PA3 and X10 (deleted) (Bases JFDs p 3 of 6 and 6 of 6) Retyped ITS Bases p B 3.6-28
RAI 3.6.1.3-14	Revised Bases ASA text and revised Bases JFD DB8 as suggested by NRC reviewer. Changes make the Bases ASA discussion consistent with the JAF DBA analysis and added new References 4 and 5 accordingly.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-16, Insert Page B 3.6-16, and B 3.6-32 Bases JFD DB8 (Bases JFDs p 4 of 6) Retyped ITS Bases p B 3.6-16, and B 3.6-28
RAI 3.6.1.3-15	Revised ITS SR 3.6.1.3.1 Bases MU as suggested by NRC reviewer. Change makes it clearer that primary containment vent and purge valves may only be open as necessary for plant operations, surveillance, etc.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-25 Retyped ITS Bases p B 3.6-23
TSTF-45 R2	Update from TSTF R1 to R2.	Specification 3.6.1.3 JFD TA1 (JFDs p 3 of 5) ITS Bases mark-up p Insert Page B 3.6-26 Bases JFD TA1 (Bases JFDs p 4 of 6)

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Source of Change	Summary of Change	Affected Pages
TSTF-269 R2	TSTF-269, R2 addresses allowing PCIVs that are locked, sealed or otherwise secured to be verified in the correct position by administrative means. Required Actions Notes are added and Bases discussions added for Notes.	Specification 3.6.1.3 CTS mark-up p 6 of 9 DOC L11 (DOCs p 12 of 14 and 13 of 14) NSHC L11 (NSHCs p 17 of 22) ITS mark-up p 3.6-9 and 3.6-10 JFD TA6 (JFDs p 3 of 5) ITS Bases mark-up p B 3.6-19, B 3.6-20, Insert Page B 3.6-20, B 3.6-21, and Insert Page B 3.6-21 Bases JFD TA6 (Bases JFDs p 4 of 6) Retyped ITS p 3.6-9 and 3.6-10 Retyped ITS Bases p B 3.6-21
TSTF-323 R0	TSTF-323, R0 addresses correct Bases Reference associated with penetrations with closed systems.	Specification 3.6.1.3 ITS Bases mark-up p B 3.6-32 Bases JFD PA3 and TA7 (Bases JFDs p 3 of 6 and 5 of 6) Retyped ITS Bases p B 3.6-19 and B 3.6-20
Amendment 260	Revised CTS MU to reflect CTS Amendment 260 which changed MSIV closure test Frequency. Deleted DOCs associated with CTS portions deleted.	Specification 3.6.1.3 CTS mark-up p 6 of 9 DOCs LA2 and LA4 (DOCs p 7 of 14)
Amendment 269	Revised CTS MU to reflect CTS Amendment 269. No change to MU needed except as necessary due to movement of text.	Specification 3.6.1.3 CTS mark-up p 9 of 9

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Source of Change	Summary of Change	Affected Pages
Editorial	Deleted NUREG JFD X4 (which duplicated NUREG JFD CLB 10) and revised NUREG MU at ITS SR 3.6.1.3.10 to reflect change. Deleted phrase "or equivalent" two places in DOC M4 to correct incomplete removal of TSTF 196 (not approved by NRC). Revised Reference numbers as necessary to reflect addition of new Ref. 4 and 5 in ASA Bases (see RAI 3.6.1.3-14 above).	Specification 3.6.1.3 DOCs M4 and L9 (DOCs p 5 of 14 and 11 of 14) NSHC L5, L10, and L11 (NSHCs p 7 of 22, 15 of 22, 17 of 22) ITS mark-up p 3.6-17 JFDs DB2 (deleted) and X4 (deleted) (JFDs p 3 of 5 and 4 of 5) ITS Bases mark-up Insert Page B 3.6-15, B 3.6-16, B 3.6-17, B 3.6-19, Insert Page B 3.6-22, B 3.6-25, and B 3.6-29 Bases JFDs CLB8, DB9 (deleted), and X12 (Bases JFDs p 1 of 6, 4 of 6 and 6 of 6) Retyped ITS Bases p B 3.6-15, B 3.6-16, B 3.6-17, B 3.6-18, B 3.6-20, B 3.6-22, B 3.6-23, B 3.6-27, and B 3.6-28
RAI 3.6.1.6-1 (as modified)	Revised JFD X1 and Bases JFD X2 to provide proper justification for a 24 month Frequency.	Specification 3.6.1.6 DOC M3 (DOCs p 1 of 5) JFD X1 (JFDs p 2 of 2) Bases JFD X2 (Bases JFDs p 3 of 3)
RAI 3.6.1.6-2 (as modified)	Revised CTS MU and added DOC M7 to reflect more restrictive ITS Conditions that require Action for any vacuum breaker (VB) inoperability for either the VB or containment isolation function. Revised DOC L1 to address only separate Condition entry for each VB inoperability and deletion of discussion regarding dual functions of the VBs. Discussion of the dual functions of VBs is addressed in DOC M7. Revised NSHC L1 to reflect changes to DOC L1.	Specification 3.6.1.6 CTS mark-up p 1 of 3 and 2 of 3 DOCs M7 and L1 (DOCs p 3 of 5 and 4 of 5) NSHC L1 (NSHCs p 1 of 5 and 2 of 5) ITS mark-up p 3.6-23 and 3.6-24
RAI 3.6.1.6-3	Revised ITS 3.6.1.6 Bases JFD DB3 by adding details regarding scenario that results in the negative pressure transient of the greatest concern.	Specification 3.6.1.6 Bases JFD DB3 (Bases JFDs p 2 of 3)

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.7-1	Changed NUREG SR 3.6.1.8.1 (ITS SR 3.6.1.7.1) MU annotation at deletion of second Frequency from CLB1 to X2. In a similar manner change Bases MU annotation from CLB1 to X5. Deleted NUREG and Bases JFD CLB1. Added NUREG JFD X2 and Bases JFD X5. The changes reflect the fact that the second Frequency in the NUREG is not part of the CLB.	Specification 3.6.1.7 ITS mark-up p 3.6-27 JFDs CLB1 (deleted) and X2 (JFDs p 1 of 3, 2 of 3, and 3 of 3) ITS Bases mark-up p B 3.6-52 Bases JFDs CLB1 (deleted) and X5 (Bases JFDs p 1 of 5, 4 of 5, and 5 of 5)
RAI 3.6.1.7-2	Restored Completion Time for Required Action B.1 to 2 hour as stated in NUREG and Bases. Deleted NUREG JFD X1 and Bases JFD X2 associated with the change.	Specification 3.6.1.7 ITS mark-up p 3.6-26 JFD X1 (deleted) (JFDs p 2 of 3) ITS Bases mark-up p B 3.6-51 Bases JFD X2 (Bases JFDs p 3 of 5) Retyped ITS p 3.6-20 Retyped ITS Bases p B 3.6-45
RAI 3.6.1.7-3	Replaced DOC L3 with DOC LA2 for relocation of vacuum breaker closure detail to Bases and deleted NSHC L3. Added Bases JFD X4 and annotated Bases markup to reflect relocation of the details to ITS SR 3.6.1.7.1 Bases.	Specification 3.6.1.7 CTS mark-up p 1 of 3 DOCs LA2 and L3 (DOCs p 4 of 6 and 5 of 6) NSHC L3 (deleted) (NSHCs p 5 of 7) ITS Bases mark-up p B 3.6-52 and Insert Page B 3.6-52 Bases JFD X4 (Bases JFDs p 4 of 5)
RAI 3.6.1.7-4 (as modified)	Deleted changes to NUREG SR 3.6.1.8.3 (ITS SR 3.6.1.7.3) and associated Bases regarding "full open" and deleted NUREG JFD PA2 and Bases JFD PA3. The NUREG SR Bases contain adequate information to convey intent of the SR without changes to the SR or the Bases.	Specification 3.6.1.7 ITS mark-up p 3.6-28 JFD PA2 (deleted) (JFDs p 1 of 3) ITS Bases mark-up p B 3.6-53 Bases JFD PA3 (deleted) (Bases JFDs p 2 of 5) Retyped ITS p 3.6-21 Retyped ITS Bases p B 3.6-47

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.7-5	Revised ITS 3.6.1.7 Bases JFD DB4 by adding details regarding the scenario that results in the negative pressure transient of greatest concern.	Specification 3.6.1.7 Bases JFD DB4 (Bases JFDs p 2 of 5)
RAI 3.6.1.7-6	Revised ITS 3.6.1.7 LCO Bases and Bases JFD DB2 to make it clear that the close function of all 5 vacuum breakers is required (to limit bypass leakage to within that assumed in analyses).	Specification 3.6.1.7 ITS Bases mark-up p B 3.6-50 Bases JFD DB2 (Bases JFDs p 2 of 5) Retyped ITS Bases p B 3.6-44
New Change	The Suppression Chamber-to-Drywell vacuum breaker functional test (i.e., cycling each vacuum breaker) has been changed from monthly to in accordance with the IST Program.	Specification 3.6.1.7 CTS mark-up p 1 of 3 DOC L4 (DOCs p 5 of 6 and 6 of 6) NSHC L4 (NSHCs p 6 of 7 and 7 of 7) ITS mark-up p 3.6-38 JFD X3 (JFDs p 3 of 3) ITS Bases mark-up p B 3.6-52 and B 3.6-53 Bases JFD X6 (Bases JFDs p 5 of 5) Retyped ITS p 3.6-21 Retyped ITS Bases p B 3.6-47
RAI 3.6.1.9-1	Revised DOCs A1, M1, and L2 reflect origin of ITS 3.6.1.9 is NUREG-1434, R1 (rather than NUREG-1433, R1).	Specification 3.6.1.9 DOCs A1, M1, and L2 (DOCs p 1 of 6, 2 of 6, and 4 of 6)
RAI 3.6.1.9-2 (as modified)	Revised Bases Background and Bases LCO discussion to make clear that system design provides two pumps per subsystem while the LCO only requires one pump per subsystem and revised Bases JFD DB6 accordingly.	Specification 3.6.1.9 ITS Bases mark-up Insert Page B 3.6-57a and Insert Page B 3.6-57c Bases JFD DB6 (Bases JFDs p 2 of 2) Retyped ITS Bases p B 3.6-52 and B 3.6-53

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.1.9-4	Revised ITS SR 3.6.1.9.3 Bases MU to include discussion of how the surveillance is done (by introduction of air) and added Bases JFD PA5 for the change.	**Specification 3.6.1.9** ITS Bases mark-up p Insert Page B 3.6-57g Bases JFD PA5 (Bases JFDs p 1 of 2) Retyped ITS Bases p B 3.6-56
RAI 3.6.1.9-5	Revised CTS MU by replacing L1 annotation with A4, added DOC A4 and deleted DOC L1 and associated NSHC L1.	**Specification 3.6.1.9** CTS mark-up p 2 of 3 DOCs A5 and L1 (DOCs p 1 of 6, 2 of 6, 4 of 6) NSHC L1 (deleted) (NSHCs p 1 of 9)
RAI 3.6.1.9-6	Revised NUREG JFD PA2 and Bases JFD PA3 to make clear that deletion of NUREG SR 3.6.1.7.1 (ITS SR 3.6.1.9.1) Note is because the Note is intended for designs where actuation is automatic (rather than manual as at JAFNPP).	**Specification 3.6.1.9** JFD PA2 (JFDs p 2 of 5) Bases JFD PA3 (Bases JFDs p 1 of 2)
Amendment 259	Revised CTS MU page to reflect CTS Amendment. No change to any other ITS portions required since the Amendment information is no longer applicable (and is deleted in ITS Section 3.7.1).	**Specification 3.6.1.9** CTS mark-up p 2 of 3
RAI 3.6.2.1-1 and RAI 3.6.2.1-6	Revised CTS MU (replaced A2 annotation with L5), deleted DOC A2, and added DOC L5 and associated NSHC L5. Changes address ITS 3.6.2.1, Actions C.1 and A.2 (in combination), allow suppression pool temperature to be > 95°F for more than 24 hours without requiring plant shutdown and cooldown as CTS does. In addition, DOC L5 addresses the relaxed ITS requirement which does not require plant shutdown and cooldown when suppression pool temperature exceeds 105 degrees F as CTS does. Replaced A2 with L5 on NUREG MU at Condition C.	**Specification 3.6.2.1** CTS mark-up p 2 of 4 DOCs A2 (deleted) and L5 (DOCs p 1 of 6, 5 of 6, 6 of 6) NSHC L5 (NSHCs p 9 of 10 and 10 of 10) ITS mark-up p 3.6-32
RAI 3.6.2.1-2	Revised CTS MU (replaced A5 annotation with M4 at CTS 3.7.A.1), deleted DOC A5, and added DOC M4. Changes concern the Applicability of CTS and ITS and address the changes for ITS 3.6.2.1 and ITS 3.6.2.3 in the same way. Replaced A5 with M4 on NUREG MU at Applicability.	**Specification 3.6.2.1** CTS mark-up p 1 of 4 DOCs A5 (deleted) and M4 (DOCs p 1 of 6 and 3 of 6) ITS mark-up p 3.6-31
RAI 3.6.2.1-4	Revised Bases MU by restoring upper case "C" to word "condition" in Actions D.1, D.2, and D.3 Bases.	**Specification 3.6.2.1** ITS Bases mark-up p B 3.6-62 Retyped ITS Bases p B 3.6-61

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Source of Change	Summary of Change	Affected Pages
RAI 3.6.2.1-5	Revised Bases MU by deletion of discussion of design of suppression pool water temperature instrumentation and adding reference to description of design contained in ITS 3.3.4.1 Bases. Revised Bases JFD DB3 to reflect changes to Bases MU.	Specification 3.6.2.1 ITS Bases mark-up p B 3.6-62 Bases JFD DB3 (Bases JFDs p 2 of 2) Retyped ITS Bases p B 3.6-61 and B 3.6-62
TSTF-206, R0	TSTF-206, R0, which allows the option of using a specific Thermal Power of 1% RTP with respect to determining the LCO (and Conditions) applicability, was incorporated. (Actual changes were very minor since almost identical changes to the NUREG and Bases had been made as part of the original ITS preparation.) Revised NUREG MU, revised Bases MU, and added NUREG and Bases JFDs to note incorporation of TSTF-206.	Specification 3.6.2.1 ITS mark-up p 3.6-31 and 3.6-32 JFDs CLB1 and TA1 (JFDs p 1 of 1) ITS Bases mark-up p B 3.6-59 and B 3.6-60 Bases JFDs CLB1 and TA1 (Bases JFDs p 1 of 2 and 2 of 2) Retyped ITS p 3.6-26 and 3.6-27 Retyped ITS Bases p B 3.6-58 and B 3.6-59
RAI 3.6.2.3-1 (as modified)	Revised ITS SR 3.6.2.3.2 Bases markup by adding word "required" to make it clearer that the SR is applicable to only the single required RHR pump in a subsystem rather than both pumps in a subsystem that are provided by design. Added Bases JFD PA4 to reflect Bases markup change.	Specification 3.6.2.3 ITS Bases mark-up p B 3.6-70 Bases JFD PA4 (Bases JFDs p 1 of 2) Retyped ITS Bases p B 3.6-70
RAI 3.6.2.3-3	Revised CTS markup by replacing L1 markup annotation with A3 and added DOC A3. Deleted DOC L1 and NSHC L1.	Specification 3.6.2.3 CTS mark-up p 2 of 2 DOCs A3 and L1 (deleted) (DOCs p 1 of 5, 2 of 5, and 4 of 5) NSHC L1 (deleted) (NSHCs p 1 of 8)

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.2.3-4 and TSTF-230, R1	TSTF-230, R1 changes ITS 3.6.2.3 Actions by allowing 8 hour to restore at least one RHR Suppression pool cooling subsystem to Operable when two (both) subsystems are inoperable prior to entering Conditions and Actions that require a plant shutdown and cooldown. The original ITS submittal contained this allowance without reference to the TSTF. Changes consist of minor revision of DOC L4, annotation of markups and addition of NUREG JFD TA1 (in place of JFD X1) and Bases JFD TA1 (in place of Bases JFD X2) to reflect approval of TSTF-230, R1.	Specification 3.6.2.3 DOC L4 (DOCs p 5 of 5) ITS mark-up p B 3.6-35 JFDs TA1 and X1 (deleted) (JFDs p 1 of 1) ITS Bases mark-up p B 3.6-69 and Insert Page B 3.6-69 Bases JFD TA1 (Bases JFDs p 1 of 2) Retyped ITS Bases p B 3.6-69
RAI 3.6.2.3-6	Revised Bases MU by restoring upper case "C" to word "Condition" in Action A.1 Bases.	Specification 3.6.2.3 ITS Bases mark-up p B 3.6-68 Retyped ITS Bases p B 3.6-69
Amendment 259	Replaced CTS markup page 2 of 2 with Amend 259 page. Amend 259 affects only the CTS markup without any changes to DOCs, NUREG markup, etc., since the changed CTS text is addressed in ITS 3.7.1, RHRSW System.	Specification 3.6.2.3 CTS mark-up p 2 of 2
Editorial	Corrected Bases MU insert page B 3.6-67 by addition of JFD DB1 annotation at first insert.	Specification 3.6.2.3 ITS Bases mark-up p Insert Page B 3.6-67
RAI CTS 3.7.A.3-1	Revised CTS MU page 2 by adding annotation for CTS 3.7.A.3. No change to DOCs or ITS text necessary.	Specification 3.6.2.4 CTS mark-up p 2 of 3
Editorial	Corrected NUREG markup page 3.6-69 at Condition A by deletion of reference to "M1" in left margin. DOC M1 does not exist.	Specification 3.6.2.4 ITS mark-up p 3.6-39
RAI 3.6.4.1-1 (as modified)	Revised ITS 3.6.4.1 Conversion Package by replacing DOC A5 with DOC L5 and associated NSHC L5. DOC L5 addresses the 4 hours allowed by ITS 3.6.4.1, Condition A, to restore Secondary Containment to an Operable status prior to requiring a plant shutdown when Secondary Containment is inoperable during movement of fuel when the plant is operating in MODE 1, 2, or 3.	Specification 3.6.4.1 CTS mark-up p 2 of 4 DOCs A5 (deleted) and L5 (DOCs p 2 of 8 and 8 of 8) NSHC L5 (NSHCs p 9 of 10 and 10 of 10)

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
TSTF-332, R2 and BWROG-ED-8	TSTF-322, R2 revises the sentence structure and phrases used in NUREG SR 3.6.4.1.5 (ITS SR 3.6.4.1.4) to more clearly convey that the intent of the SR is to verify that Secondary Containment is Operable (intact/leak tight). Bases changes that reflect TSTF-322, R2 (as modified by "editorial" changes BWROG-ED-8) were also made. NUREG JFD TA1 and Bases JFD TA1 were added to reflect incorporation of the TSTF.	Specification 3.6.4.1 ITS mark-up p 3.6-49 JFD TA2 (JFDs p 1 of 2) ITS Bases mark-up p B 3.6-101 and Insert Page B 3.6-101 Bases JFD TA2 (Bases JFDs p 2 of 2) Retyped ITS p B 3.6-38 Retyped ITS Bases p B 3.6-88 and B 3.6-89
RAI 3.6.4.2-1	Revised DOC A3 by deletion of those portions of the DOC that addressed ITS 3.6.4.2, ACTIONS Note 2 (separate Condition entry allowed for each penetration). Added DOC L8 and associated NSHC L8 to address ACTIONS Note 2. Revised CTS markup and NUREG markup to reflect addition of DOC L8 in place of part of DOC A3.	Specification 3.6.4.2 CTS mark-up p 4 of 7 DOCs A3 and L8 (DOCs p 1 of 10 and 9 of 10) NSHC L8 (NSHCs p 14 of 17 and 15 of 17) ITS mark-up p 3.6-50
RAI 3.6.4.2-2 (as modified)	Replaced DOC A5 with DOC L9 and associated NSHC L9 to address addition of ITS 3.6.4.2, ACTION D.1 Note. The ACTION D.1 Note does not allow "default" to ITS 3.0.3 while the Completion Times for ACTIONS A.1 and B.1 allow 8 hours (or 4 hours) to isolate an inoperable penetration prior to requiring plant shutdown under ITS 3.6.4.2, ACTION C.1 and C.2. Revised CTS markup and NUREG markup to reflect addition of DOC L9 in place of DOC A5.	Specification 3.6.4.2 CTS mark-up p 5 of 7 DOCs A5 (deleted) and L9 (DOCs p 2 of 10, 9 of 10, and 10 of 10) NSHC L9 (NSHCs p 16 of 17 and 17 of 17) ITS mark-up p 3.6-52
RAI 3.6.4.2-3	Replaced DOC L6 with DOC A6 and deleted NSHC L6. Revised CTS markup to reflect changes to DOCs. Changes reflect NRC reviewer comment that the details regarding conduct of LOGIC SYSTEM FUNCTIONAL TEST is encompassed within the ITS Definition.	Specification 3.6.4.2 CTS mark-up p 7 of 7 DOCs A6 and L6 (DOCs p 2 of 10 and 9 of 10) NSHC L6 (deleted) (NSHCs p 11 of 17)
RAI 3.6.4.2-4	Revised Bases Applicability markup by restoring the last sentence of Applicability as cited by NRC reviewer. Original submittal had deleted the sentence. Deleted associated Bases JFD PA3.	Specification 3.6.4.2 ITS Bases mark-up p B 3.6-104 Retyped ITS Bases p B 3.6-92

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.4.2-5	Revised ACTIONS A.1 and A2 Bases markup and ITS SR 3.6.4.2.1 Bases markup by deletion of changes cited by NRC reviewer and deleted associated Bases JFD PA3. (Changes had originally inserted the phrase "isolation devices" in place of SCIVs.)	Specification 3.6.4.2 ITS Bases mark-up p B 3.6-105 and B 3.6-107 Bases JFD PA3 (deleted) (Bases JFDs p 1 of 2) Retyped ITS p B 3.6-38 Retyped ITS Bases p B 3.6-93 and B 3.6-95
RAI 3.6.4.2-6	Corrected error in LCO Bases markup cited by NRC reviewer. (Changed markup annotation "X4" to "X3" since Bases JFD X4 does not exist.)	Specification 3.6.4.2 ITS Bases mark-up p B 3.6-103
TSTF-45, R2	TSTF-45, R2 exempts valves that are locked, sealed, or otherwise secured in position from the periodic (31 days) verification of proper position required by ITS SR 3.6.4.2.1. Revised NUREG SR 3.6.4.2.1 markup, revised Bases markup for SR 3.6.4.2.1. Added NUREG JFD TA2 and Bases JFD TA2 to reflect incorporation of TSTF-45, R2.	Specification 3.6.4.2 ITS mark-up p 3.6-53 JFD TA2 (JFDs p 1 of 1) ITS Bases mark-up p B 3.6-107 and Insert Page B 3.6-107 Bases JFD TA2 (Bases JFDs p 1 of 2) Retyped ITS p B 3.6-42 Retyped ITS Bases p B 3.6-95
TSTF-269, R2	TSTF-269, R2 exempts valves that are locked, sealed, or otherwise secured in position from the periodic (31 days) verification of proper position required by ITS 3.6.4.2, ACTION A.2. Revised DOC M5 by adding discussion of ACTION A.2 Note 2. Revised NUREG 3.6.4.2, ACTION A.2 markup and revised Bases markup for ITS 3.6.4.2 ACTIONS A.1 and A.2 Bases. Added NUREG JFD TA3 and Bases JFD TA3 to reflect incorporation of the TSTF.	Specification 3.6.4.2 DOC M5 (DOCs p 4 of 10) ITS mark-up p 3.6-51 JFD TA3 (JFDs p 1 of 1) ITS Bases mark-up p Insert Page B 3.6-105 Bases JFD TA3 (Bases JFDs p 1 of 2) Retyped ITS p B 3.6-40 Retyped ITS Bases p B 3.6-93
Editorial	JFDs corrected to reflect approved TSTF.	Specification 3.6.4.2 JFD TA1 (JFDs p 1 of 1) Bases JFD TA1 (Bases JFDs p 1 of 2)

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
RAI 3.6.4.3-2 and RAI 3.6.4.3-3	Changes reflect maintaining current licensing basis with regard to periodic test (cycling) of decay heat cooling valves 3A and 3B (rather than to periodically verify that the valves are open as was proposed in the original submittal). Revised CTS markup and NUREG SR 3.6.4.3.4 markup by deletion of the SR Note that was added in original submittal to allow the LCO to be met during SR performance. Changes to the SR made in response to RAI 3.6.4.3-2 make the Note unnecessary and the NUREG markup and Bases markup were revised accordingly. DOC A4 was revised to reflect deletion of the SR Note.	Specification 3.6.4.3 CTS mark-up p 3 of 10 DOC A4 (DOCs p 1 of 8) ITS mark-up p 3.6-56 ITS Bases mark-up p B 3.6-114 and Insert Page B 3.6-114 Retyped ITS p 3.6-45 Retyped ITS Bases p B 3.6-103
RAI 3.6.4.3-4 (as modified)	Revised DOC M5 to more clearly explain why addition of ITS 3.6.4.3, ACTIONS C and E.1 Note, is "more restrictive" than CTS requirements.	Specification 3.6.4.3 DOC M5 (DOCs p 4 of 8 and 5 of 8)
RAI 3.6.4.3-5 and RAI 3.6.4.3-6	Revised CTS 4.7.B.2 markup to show it retained rather than deleted (changed markup annotation from L2 to A5). Replaced DOC L2 (and associated NSHC L2) with DOC A5. Changes discuss the fact that verification of operability of redundant systems, structures and components is implicit in the use of CTS and ITS and that placing the operable SGT subsystem in service (as required by ITS 3.6.4.3, ACTION C.1) satisfies CTS 4.7.B.2.	Specification 3.6.4.3 CTS mark-up p 3 of 10 DOCs A5 and L1 (DOCs p 2 of 8 and 7 of 8) NSHC L2 (deleted) (NSHCs p 3 of 8)
RAI 3.6.4.3-7	Replaced DOC L5 with DOC A6 and deleted NSHC L5. Revised CTS markup to reflect changs to DOCs. Changes reflect NRC reviewer comment that the details regarding conduct of LOGIC SYSTEM FUNCTIONAL TEST is encompassed within the ITS Definition.	Specification 3.6.4.3 DOCs A6 and L5 (deleted) (DOCs p 2 of 8 and 8 of 8) NSHC L5 (deleted) (NSHCs p 8 of 8)
RAI 3.6.4.3-8	Revised Bases MU by restoring upper case "C" to word "condition" in ACTIONS A.1 Bases.	Specification 3.6.4.3 ITS Bases mark-up p B 3.6-111 Retyped ITS Bases p B 3.6-99
TSTF-362, R0	TSTF-362, R0 revises the Bases to reflect Generic Letter 99-02 regarding laboratory testing of charcoal filters. The reference to Regulatory Guide 1.52 in ITS SR 3.6.4.3.2 Bases discussion is deleted and Bases References were revised accordingly. Bases JFD TA1 was added to reflect incorporation of the TSTF.	Specification 3.6.4.3 ITS Bases mark-up p B 3.6-113 and B 3.6-114 Bases JFD TA1 (Bases JFDs p 2 of 2) Retyped ITS p 3.6-102 Retyped ITS Bases p B 3.6-102 and B 3.6-103

SUMMARY OF CHANGES TO ITS SECTION 3.6 - REVISION E

Source of Change	Summary of Change	Affected Pages
Amendment 269	Revised CTS markup to reflect CTS Amend 269. No changes were made to CTS portions associated with ITS 3.6.4.3.	Specification 3.6.4.3 CTS mark-up p 2 of 10 through 4 of 10
RAI S3.6.2.4-1	Markup annotation referred to CLB1 which does not exist. Changed markup annotation to DB1 as cited by NRC reviewer.	NUREG Specification 3.6.2.4 ITS Bases mark-up p B 3.6-71
RAI S3.6.3.2-1	Revised NUREG JFD DB1 and Bases JFD DB1 to more fully explain that deletion of NUREG 3.6.3.2 is based on the fact that the drywell cooling system fans at JAFNPP are not designed for operation during DBA conditions.	NUREG Specification 3.6.3.2 JFD DB1 (JFDs p 1 of 1) Bases JFD DB1 (Bases JFDs p 1 of 1)
RAI 3.7.A.3-1	Revised CTS MU to address relocation of shutdown requirements of CTS 3.7.A.8 as they apply to CTS 3.7.A.3. Revised DOC R1 to correct the erroneous reference to surveillance requirements associated with CTS 3.7.A.3 and to address relocation of CTS 3.7.A.8 shutdown requirements to ODCM.	CTS 3.7.A.3 CTS mark-up p 1 of 2 and 2 of 2 DOC R1 (DOCs p 1 of 2 and 2 of 2)
RAI 3.7.A.3-2	Revised DOC R1 by including a brief discussion noting that the only primary containment purge path that exists is, by design, via the SGT System.	CTS 3.7.A.3 DOC R1 (DOCs p 1 of 2)
Editorial	The proper acronym was added to DOC R1.	CTS 3.7.A.3 DOC R1 (DOCs p 1 of 2 and 2 of 2)

ITS CONVERSION PACKAGE

SECTION 3.6 - CONTAINMENT SYSTEMS

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

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: 3.6.1.1

Primary Containment

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

See ITS 1.0

JAFnPP

1.0 (cont'd)

A1

1. Refuel Mode - The reactor is in the refuel mode when the Mode Switch is in the Refuel Mode position. When the Mode Switch is in the Refuel position, the refueling interlocks are in service.

2. Run Mode - In this mode the reactor system pressure is at or above 850 psig and the Reactor Protection System is energized with APRM protection (excluding the 15 percent high flux trip) and the RBM interlocks in service.

3. Shutdown Mode - The reactor is in the shutdown mode when the Reactor Mode Switch is in the Shutdown Mode position.

   a. Hot shutdown means conditions as above with reactor coolant temperature >212°F.

   b. Cold shutdown means conditions as above with reactor coolant temperature ≤212°F. and the reactor vessel vented.

4. Startup/Hot Standby - In this mode the low pressure main steam line isolation valve closure trip is bypassed, the Reactor Protection System is energized with APRM (15 percent) and IRM neutron monitoring system trips and control rod withdrawal interlocks in service.

J. Operable - A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

K. Operating - Operating means that a system or component is performing its intended functions in its required manner.

L. Operating Cycle - Interval between the end of one refueling outage and the end of the subsequent refueling outage.

LCO 3.6.1.1

M. Primary Containment Integrity - OPERABLE

Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

LA1

1. All manual containment isolation valves on lines connected to the Reactor Coolant System or containment which are not required to be open during plant accident conditions are closed. These valves may be

See ITS 3.6.1.3

RAI 3.6.1.1-1

Amendment No. 95, 177, 134

4

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REVISION E

JAFNPP

1.0 (cont'd)

See ITS: 3.6.1.3

opened to perform necessary operational activities.

See ITS: 3.6.1.2

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or de-activated in the isolated position.

See ITS: 3.6.1.3

4. All blind flanges and manways are closed. (LA1)

N. Rated Power - Rated power refers to operation at a reactor power of 2,536 MWt. This is also termed 100 percent power and is the maximum power level authorized by the operating license. Rated steam flow, rated coolant flow, rated nuclear system pressure, refer to the values of these parameters when the reactor is at rated power (Reference 1).

O. Reactor Power Operation - Reactor power operation is any operation with the Mode Switch in the Startup/Hot Standby or Run position with the reactor critical and above 1 percent rated thermal power.

P. Reactor Vessel Pressure - Unless otherwise indicated, reactor vessel pressures listed in the Technical Specifications are those measured by the reactor vessel steam space sensor.

Q. Refueling Outage - Refueling outage is the period of time between the shutdown of the unit prior to refueling and the startup of the Plant subsequent to that refueling.

R. Safety Limits - The safety limits are limits within which the reasonable maintenance of the fuel cladding integrity and the reactor coolant system integrity are assured. Violation of such a limit is cause for unit shutdown and review by the Nuclear Regulatory Commission before resumption of unit operation. Operation beyond such a limit may not in itself result in serious consequences but it indicates an operational

See ITS: Chapter 1.0

See ITS: Chapter 1.0

deficiency subject to regulatory review.

S. Secondary Containment Integrity - Secondary containment integrity means that the reactor building is intact and the following conditions are met: See ITS: 3.6.4.1

1. At least one door in each access opening is closed.

2. The Standby Gas Treatment System is operable. See ITS: 3.6.4.3

3. All automatic ventilation system isolation valves are operable or secured in the isolated position. See ITS: 3.6.4.2

T. Surveillance Frequency Notations / Intervals

The surveillance frequency notations / intervals used in these specifications are defined as follows:

Notations	Intervals	Frequency
D	Daily	At least once per 24 hours
W	Weekly	At least once per 7 days
M	Monthly	At least once per 31 days
Q	Quarterly or every 3 months	At least once per 92 days
SA	Semiannually or every 6 months	At least once per 184 days
A	Annually or Yearly	At least once per 366 days
18M	18 Months	At least once per 18 months (550 days)
R	Operating Cycle	At least once per 24 months (731 days)
S/U		Prior to each reactor startup
NA		Not applicable

See ITS: Chapter 1.0 Section 5.5

Specification 3.6.1.1

A1

3.7 (cont'd)	4.7 (cont'd)
(2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 10°F above the normal power operation limit specified in (1) above. In connection with such testing, the pool temperature must be reduced to below the normal power operation limit specified in (1) above within 24 hours.	See ITS: 3.6.2.1
(3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal power operation limit specified in (1) above.	
(4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120°F	
[3.6.1.1] [LCO 3.6.1.1] 2. Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F, and fuel is in the reactor vessel, except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 MWt. (A2) OPERABLE (M3)	2. a. [SR 3.6.1.1.1] Perform required visual examination and leakage rate testing of the Primary Containment in accordance with the Primary Containment Leakage Rate Testing Program. (A3) except for primary containment air lock testing
	b. Demonstrate leakage rate through each MSIV is ≤ 11.5 scfh when tested at ≥ 25 psig. The testing frequency is in accordance with the Primary Containment Leakage Rate Testing Program. See ITS: 3.6.1.3
	c. Once per 24 months, demonstrate the leakage rate of 10AOV-68A,B for the Low Pressure Coolant Injection system and 14AOV-13A,B for the Core Spray system to be less than 11 scfm per valve when pneumatically tested at ≥ 45 psig at ambient temperature, or less than 10 gpm per valve if hydrostatically tested at ≥ 1,035 psig at ambient temperature.

See ITS 3.10.8

Applicability

add ACTION A (L1)

See ITS: 3.6.1.3

A1

3.7 (cont'd)	4.7 (cont'd)
See ITS 3.6.1.6	See ITS 3.6.1.7
breaker is sooner made operable, provided that the repair procedure does not violate primary containment integrity.	
5. Pressure Suppression Chamber - Drywell Vacuum Breakers	5. Pressure Suppression Chamber - Drywell Vacuum Breakers
a. When primary containment integrity is required, all drywell suppression chamber vacuum breakers shall be operable and positioned in the fully closed position except during testing and as specified in 3.7.A.5.b below.	a. Each drywell suppression chamber vacuum breaker shall be exercised through an opening - closing cycle monthly.
b. One drywell suppression chamber vacuum breaker may be non-fully closed so long as it is determined to be not more than 1° open as indicated by the position lights.	b. When it is determined that one vacuum breaker is inoperable for fully closing when operability is required, the operable breakers shall be exercised immediately, and every 15 days thereafter until the inoperable valve has been returned to normal service.
c. One drywell suppression chamber vacuum breaker may be determined to be inoperable for opening.	c. Each vacuum breaker valve shall be visually inspected to insure proper maintenance and operation in accordance with the Inservice Testing Program.
d. Deleted	[SR 3.6.1.1.2] (d) A leak test of the drywell to suppression chamber structure shall be conducted once per 24 months; the acceptable leak rate is ≤0.25 in. water/min, over a 10 min period, with the drywell at ≥ 1 psid.

RAI 3.6.1.1-3

Verify suppression chamber pressure increase is

M4 ≥

and every 12 months after two consecutive tests fail until two consecutive tests pass

M2

Specification 3.6.1.1

A1

JAFNPP

3.7 (cont'd)	4.7 (cont'd)
e. Leakage between the drywell and suppression chamber shall not exceed a rate of 71 scfm as monitored via the suppression chamber 10 min pressure transient of 0.25 in. water/min.	e. Not applicable
f. The self actuated vacuum breakers shall open when subjected to a force equivalent to 0.5 psid acting on the valve disc.	f. Not applicable
g. From and after the date that one of the pressure suppression chamber/drywell vacuum breakers is made or found to be inoperable for any reason, the vacuum breaker shall be locked closed and reactor operation is permissible only during the succeeding seven days unless such vacuum breaker is sooner made operable, provided that the repair procedure does not violate primary containment integrity.	g. Once per 24 months, each vacuum breaker shall be tested to determine that the force required to open the vacuum breaker does not exceed the force specified in Specification 3.7.A.5.f and each vacuum breaker shall be inspected and verified to meet design requirements.

LA3

RAI 3.6.1.1-3

See ITS 3.6.1.7

Specification 3.6.1.1

A1

3.7 (Cont'd)	4.7 (Cont'd)
(1) The drywell to torus differential pressure shall be established within 24 hours of exceeding 15% rated thermal power during startup. The differential pressure may be reduced to less than the limit up to 24 hours prior to reducing thermal power to less than 15% of rated before a plant shutdown.	
(2) The differential pressure may be decreased to less than 1.7 psid for a maximum of four (4) hours during required operability testing of the HPCI, RCIC, and Suppression Chamber - Drywell Vacuum Breaker System.	
(3) If 3.7.A.7.a above cannot be met, restore the differential pressure to within limits within eight hours or reduce thermal power to less than 15% of rated within the next 12 hours.	

See ITS: 3.6.2.4

ACTION B

8. If the specifications of 3.7.A.1 through 3.7.A.5 cannot be met the reactor shall be in the cold condition within 24 hours.

Be in MODE 3 12 hours

M1

36

L2

8. Not applicable.

Specification 3.6.1.1

See ITS 3.6.2.1, 3.6.2.2

JAFNPP

A1

3.7 LIMITING CONDITIONS FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
3.7 CONTAINMENT SYSTEMS	4.7 CONTAINMENT SYSTEMS
Applicability:	**Applicability:**
Applies to the operating status of the primary and secondary containment systems.	Applies to the primary and secondary containment integrity.
Objective:	**Objective:**
To assure the integrity of the primary and secondary containment systems.	To verify the integrity of the primary and secondary containment systems.
Specification:	**Specification:**
A. Primary Containment	A. Primary Containment
1. The level from the bottom of the torus and temperature of the water in the torus shall be maintained within the following limits whenever the reactor is critical or whenever the reactor coolant temperature is greater than 212°F and irradiated fuel is in the reactor vessel:	1. The torus water level and temperature shall be monitored as specified in Table 4.2-8.
a. Maximum level of 14.00 feet.	The accessible interior surfaces of the drywell and above the water line of the torus shall be inspected once per 24 months for evidence of deterioration.
b. Minimum level of 13.88 feet.	Whenever there is indication of relief valve operation or testing which adds heat to the suppression pool, the pool temperature shall be continuously recorded until the heat addition is terminated. The operator will verify that average temperature is within applicable limits every 5 minutes. In lieu of continuous recording, the operator shall log the temperature every 5 minutes.
The torus water level may be outside the above limits for a maximum of four (4) hours as a result of required operability testing of HPCI, RCIC, RHR, CS, and the Drywell - Torus Vacuum Relief System.	Whenever there is indication of relief valve operation with the temperature of the suppression pool reaching 160°F or more and the primary coolant system pressure greater than 200 psig, an external visual examination of the torus shall be conducted before resuming power operation.
c. Maximum water temperature	
(1) During normal power operation maximum water temperature shall be 95°F.	

L3

RAI 3.6.1.1-2

Specification 3.6.1.1

A1

3.7 (cont'd)

3. The containment shall be purged through the Standby Gas Treatment System whenever the primary containment integrity is required. If this requirement cannot be met, then purging shall be discontinued without delay.

see CTS 3.7.A.3

~~4.7 (cont'd)~~

3. Continuous Leak Rate Monitoring

When the primary containment is inerted, it shall be continuously monitored for gross leakage by review of the inerting system makeup requirements.

LA4

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

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 that 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 3.7.A.2 reference to "Primary Containment Integrity" has been deleted since the CTS definition of Primary Containment Integrity in CTS 1.0.M is incorporated into ITS 3.6.1.1, 3.6.1.2 and 3.6.1.3 and is no longer maintained as a separate definition in the ITS. Proposed ITS 3.6.1.1 requires that the primary containment shall be OPERABLE. The definition of OPERABLE and the subsequent ITS 3.6.1.1 LCO, ACTIONs, and Surveillances are sufficient to encompass the requirements of the CTS definition. This change removes any confusion which may exist between the definition and the specific requirements of the LCO and is a presentation preference consistent with NUREG-1433, Revision 1. Since all aspects of the Primary Containment Integrity definition requirements, along with the remainder of the LCOs in the Containment Systems Primary Containment section (i.e., air locks, isolation valves, suppression pool, etc.) are maintained in subsequent Specifications of ITS this change is considered to be administrative only.

A3 CTS 4.7.A.2.a requirement, to perform required visual examination and leakage rate testing of the Primary Containment, has been changed. Proposed ITS 3.6.1.1 includes an exception for primary containment air lock testing. This change is acceptable since Proposed ITS 3.6.1.2 will provide for primary containment airlock testing. Therefore, this change is considered to be a presentation preference consistent with NUREG-1433, Revision 1, and an administrative change only.

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.7.A.8 requires the reactor to be in the cold condition within 24 hours if the requirements of CTS 3.7.A.2 (primary containment integrity) cannot be met. ITS 3.6.1.1 Required Action B.1 requires the plant to be in MODE 3 in 12 hours if the Required Action and associated Completion Time of ITS 3.6.1.1 ACTION A (L1) is not met. In addition, ITS 3.6.1.1 Required Action B.2 requires the plant to be in MODE 4 in 36 hours (L2). This change is more restrictive because it provides an additional

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 (continued)

requirement to place the plant in MODE 3 in 13 hours (1 hour from Required Action A.1 (L1) and 12 hours from Required Action B.1). The allowed Completion Times in Required Action B.1 and B.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 CTS 4.7.A.5.d requires the drywell to suppression chamber leak rate to be verified. ITS SR 3.6.1.1.2 adds the Frequency requirement that if two consecutive leak tests fail, the leak test must be repeated every 12 months until two consecutive leak tests pass. Two consecutive test failures would indicate unexpected primary containment degradation, and increasing the Frequency to once every 12 months establishes the acceptability of the drywell to suppression chamber leakage sooner. The increased Frequency of 12 months for the drywell to suppression chamber leak test following two consecutive test failures imposes additional operational requirements and time restraints. Therefore, this change is considered to be more restrictive but necessary to ensure suppression pool bypass leakage is maintained within limits.

M3 The CTS Applicability of the Primary Containment in CTS 3.7.A.2 is whenever the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel. In addition, there is an exception in CTS 3.7.A.2, to not require primary containment integrity to be met during low power physics tests at atmospheric pressure and power levels not to exceed 5 MWt, however any change to this requirement is discussed in the Discussion of Changes for ITS 3.10.8. The scope of the current Applicability covers MODE 1, 3 and portions of MODE 2 operations. The Applicability in ITS 3.6.1.1 is MODES 1, 2 and 3. This change is considered more restrictive since the containment will be required to be Operable at all times in MODE 2 even prior to any plant startup when reactor coolant temperature may be below 212°F. This change is consistent with NUREG-1433, Revision 1.

TECHNICAL CHANGES - MORE RESTRICTIVE

M4 The CTS 4.7.A.5.d requirement that the drywell to suppression chamber leak rate test be conducted at 1 psid is being changed to a differential pressure of ≥ 1 psi. Performing the test at precisely 1 psid is not possible and actual test performance is conducted at slightly higher differential pressure to ensure test differential pressure does not decrease to less than 1 psi. The higher test differential pressure increases leakage resulting in conservative (more restrictive) test results. Therefore, this change is considered to be more restrictive but necessary to allow test performance in strict compliance with the SR and in a conservative manner.

RAI 3.6.1.1-3

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The details of the CTS 1.0.M definition of Primary Containment integrity that the drywell and pressure suppression chamber are intact and the requirement that manways (CTS 1.0.M.4) are closed are proposed to be relocated to the Bases. The requirement in ITS LCO 3.6.1.1 that the Primary Containment shall be OPERABLE (see A2) and the definition of Operability is sufficient to ensure the requirements are met. The ITS 3.6.1.1 LCO Bases states that compliance with this LCO will ensure a primary containment configuration, including hatches (manways), that is structurally sound and that will limit leakage to those leakage rates assumed in the analysis. This requirement ensures the existing requirements are retained. As such, these details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to the Bases will be controlled by the provisions of the Bases Control Program described in Chapter 5 of the ITS.

LA2 Not used.

RAI 3.6.11-2

LA3 The details in CTS 3.7.A.5.e that the drywell to suppression chamber leakage rate limit of ≤ 71 scfm shall be monitored via the suppression chamber 10 minute pressure transient is proposed to be relocated to the Bases. The requirement in ITS SR 3.6.1.1.2 to verify the suppression chamber pressure increase is ≤ 0.25 in. water gauge/minute for a 10 minute period is sufficient to ensure the requirement is met. The details in the Bases of SR 3.6.1.1.2 will ensure the test is performed consistent with the current requirements. As such, these details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to the Bases will be controlled by the provisions of the Bases Control Program described in Chapter 5 of the ITS.

RAI 3.6.1.1-3

LA4 The requirement of CTS 4.7.A.3 (Continuous Leak Rate Monitoring) that when the primary containment is inerted, it shall be continuously

TECHNICAL CHANGES - MORE RESTRICTIVE (GENERIC)

LA4 (continued)

monitored for gross leakage by review of the inerting system makeup requirements is proposed to be relocated to the UFSAR. The requirements in ITS LCO 3.6.1.1, that the Primary Containment shall be Operable, the requirement in ITS LCO 3.6.1.2, that two primary containment air locks shall be Operable, the definition of Operability, and the requirements in SR 3.6.1.1.1 and SR 3.6.1.2.1 to perform required visual examinations and leakage rate testing in accordance with the Primary Containment Leakage Rate Testing Program are sufficient to ensure all Primary Containment Leakage limits are met. As such, this Surveillance is not required to be in the ITS to provide adequate protection of public health and safety. Changes to the UFSAR will be controlled by the provisions of 10 CFR 50.59.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 3.7.A.2 does not provide any time to restore the primary containment to Operable status if it is found to be inoperable. Entry into CTS 3.7.A.8 is required and the plant is required to be in cold shutdown within 24 hours. ITS 3.6.1.1 ACTION A has been added to allow 1 hour to restore primary containment to OPERABLE status. ITS 3.6.1.1 ACTION A provides 1 hour to restore the primary containment to OPERABLE before proceeding to ACTION B and the subsequent MODE 3 in 12 hours (M1) and MODE 4 in 36 hours (L2). The additional one hour allowed to restore primary containment provides a period of time to correct the problem commensurate with the importance of maintaining primary containment OPERABILITY during MODES 1, 2, and 3. Additionally, the one hour period ensures the probability of an accident (requiring containment OPERABILITY) occurring during periods where primary containment is inoperable is maintained at a minimum.

L2 CTS 3.7.A.8 requires the reactor to be in the cold condition (MODE 4) within 24 hours if the requirements of CTS 3.7.A.2 (primary containment integrity) cannot be met. ITS 3.6.1.1 Required Action B.2 requires the plant to be in MODE 4 in 36 hours if the Required Action and associated Completion Time (primary containment restored to OPERABLE status in 1 hour) of ITS 3.6.1.1 ACTION A (L1) is not met. However, ITS 3.6.1.1 Required Action B.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 37 hours (1 hour from Required Action A.1 (L1) and 36 hours from Required Action B.1). The allowed Completion Times in Required Actions B.1 and B.2 are reasonable, based on operating experience, to reach the required plant conditions from

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 (continued)

full power conditions in an orderly manner and without challenging plant systems. The consequences of an accident are not significantly increased because ITS 3.6.1.1, Required Action B.1 will require the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action or Completion Time associated with the primary containment being inoperable cannot be satisfied. 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. This change is consistent with NUREG-1433, Revision 1.

L3 The requirement in CTS 4.7.A.1 to perform a visual inspection of the accessible interior surfaces of the drywell and above the water line of the torus (suppression chamber) once per 24 months for evidence of deterioration is proposed to be deleted. The visual examination required by CTS 4.7.A.2.a (ITS SR 3.6.1.1.1) duplicates the visual inspection (examination) required by CTS 4.7.A.1 except for the Frequency of the required examinations. CTS 4.7.A.2.a (ITS SR 3.6.1.1.1) is required by the Primary Containment Leakage Rate Testing Program, which is based on 10 CFR 50, Appendix J, Option B, to be performed prior to each Type A test and two additional times during each 10 year interval. Thus the CTS 4.7.A.2.a (ITS SR 3.6.1.1.1) required visual examination is performed at least 3 times in each 10 year period while the CTS 4.7.A.1 required visual inspection is performed once per 24 months (or five times in a 10 year period). Additional examinations are performed as required by the Inservice Inspection (ISI) Program and every five years as required by the Maintenance Rule. The results of examinations conducted over more than 20 years of plant operation and through 14 refuel outages has shown that no significant deterioration has taken place. This operating experience base demonstrates that performing the visual examinations at the Frequency required by the Primary Containment Leakage Rate Testing Program (at least three examinations in a 10 year period) is adequate to detect significant deterioration of the accessible interior surfaces of the drywell and above the water line of the suppression chamber. As such, performing the CTS 4.7.A.1 required visual inspections once per 24 months is not required to provide adequate protection of public health and safety. Changes to the Primary Containment Leakage Rate Testing Program are controlled by the provisions of 10 CFR 50.59.

RAI 3.6.1.1-2

DISCUSSION OF CHANGES
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change adds an ACTION to allow one hour to restore the primary containment to OPERABLE status. The addition of one hour allows restoration of primary containment within a period of time commensurate with the importance of maintaining primary containment OPERABILITY during MODES 1, 2, and 3. Also, the one hour period to restore primary containment ensures that the probability of an accident (requiring primary containment OPERABILITY) occurring during periods where primary containment is inoperable is minimal. This change allows the plant a more lenient shutdown path than currently exists, permitting the shutdown (if primary containment OPERABILITY cannot be restored) to proceed in a more orderly and controlled manner. This change will not allow continuous operation when components are inoperable or parameter limits are not met. This change to the Completion Times to attempt to restore primary containment OPERABILITY is not assumed in the initiation of any analyzed event. Therefore, the probability of an accident previously evaluated is not significantly increased. In addition, the consequences of an event occurring during the proposed primary containment restoration Completion Time are the same as the consequences of an event occurring during the existing Completion Times. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. This change to the Completion Times to attempt to restore primary containment OPERABILITY is not assumed in the initiation of any analyzed event. In addition, the consequences of an event occurring during the proposed primary

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

2. (continued)

containment restoration Completion Time are the same as the consequences of an event occurring during the existing Completion Times. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The 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 relaxation in the time allowed to initiate a plant shutdown (allowing one hour to attempt to restore primary containment OPERABILITY prior to initiating a plant shutdown) represents a relaxation over the provisions of the current definition of Limiting Condition for Operation. However, this relaxation is acceptable based on the small probability of an event requiring primary containment OPERABILITY and the desire to minimize transients. This change will not affect a margin of safety because it has no impact on the safety analysis assumptions. The Completion Time to restore primary containment OPERABILITY is not assumed in any analyzed accidents. The proposed change will enhance plant safety by providing an opportunity to avoid a shutdown transient by the restoration of primary containment OPERABILITY within a reasonable amount of time. Therefore, this change will not involve a significant reduction in a margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change modifies the Completion Times for Shutdown Actions when a Required Action and associated Completion Time specified in the Technical Specifications cannot be met. The proposed change does not increase the probability of an accident because the change extends the time allowed for the plant to get 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 the primary containment inoperable. The consequences of an accident are not significantly increased because ITS 3.6.1.1, Required Action B.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action or Completion Time associated with the primary containment being inoperable cannot be satisfied. 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.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

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 shutdown Completion Times are not assumed to be the initiator of any analyzed accident. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The 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 change extends the time allowed for the plant to get to Cold Shutdown from 24 hours to 36 hours when the Required Action or Completion Time associated with an inoperable containment cannot be satisfied. There is no significant reduction in the margin of safety because ITS 3.6.1.1, Required Action B.1 will require that the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action or Completion Time of ITS 3.6.1.1 ACTION A 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.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

RAI 3.6.1.1-2

L3 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 a requirement to perform a visual inspection of the accessible interior surfaces of the drywell and above the water line of the suppression chamber once per 24 months. The same visual inspection is required by other requirements at other (less frequent) intervals. The probability of an accident is not increased by elimination of a surveillance requirement that is not assumed to be the initiator of any analyzed event. The consequences of an accident are not significantly increased because the same visual inspection (examination) is required by CTS 4.7.A.2.a (proposed ITS SR 3.6.1.1.1), the Inservice Inspection (ISI) Program, and the Maintenance Rule. Past performance of CTS 4.7.A.1 and these other requirements has shown that evidence of deterioration of the accessible interior surfaces of the drywell and above the water line of the suppression chamber would be detected under the reduced examination Frequency requirements of CTS 4.7.A.2.a (proposed ITS SR 3.6.1.1.1) prior to the deterioration being significant. 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 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 will still ensure visual examinations are performed as required by CTS 4.7.A.2.a (proposed ITS SR 3.6.1.1.1), the Maintenance Rule and the ISI program at a Frequency that is adequate to detect evidence of deterioration prior to the deterioration being significant. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

RAI 3.6.1.1-2

L3 CHANGE

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

The proposed change increases the interval between visual examinations of the accessible interior surface of the drywell and above the water line of the suppression chamber for evidence of deterioration by deletion of the CTS 4.7.A.1 requirement to perform the examination once per 24 months. Industry and plant operating experience demonstrates that examinations performed as required by CTS 4.7.A.2.a (proposed ITS SR 3.6.1.1.1), the Maintenance Rule, and the Inservice Inspection (ISI) Program are adequate for detection of the evidence of deterioration. In addition, since the Primary Containment Leakage Rate Test Program contains provision for decreasing the interval between tests as a result of unsatisfactory test results, the proposed change does not involve a significant reduction in a margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

MARKUP OF NUREG-1433, REVISION 1
SPECIFICATION

3.6 CONTAINMENT SYSTEMS

3.6.1.1 Primary Containment

[1.0.M]

[3.7.A.2] LCO 3.6.1.1 Primary containment shall be OPERABLE.

[3.7.A.2] APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
[L1] A. Primary containment inoperable.	A.1 Restore primary containment to OPERABLE status.	1 hour
[3.7.A.8] [M1] [L2] B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

and Low Pressure Coolant Injection and Core Spray System injection line air operated testable check valve

CLB3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
[4.7.A.2.a] SR 3.6.1.1.1	Perform required visual examinations and leakage rate testing except for primary containment air lock testing, in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions. the Primary Containment Leakage Rate Testing Program The leakage rate acceptance criterion is ≤ 1.0 L_a. However, during the first unit startup following testing performed in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, the leakage rate acceptance criteria are < 0.6 L_a for the Type B and Type C tests, and < 0.75 L_a for the Type A test.	-----NOTE----- SR 3.0.2 is not applicable ---------- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions TA1 RAI 3.6.1.1-4/TSTF-52, R3 RAI 3.6.1.1-6
[4.7.A.5.d] SR 3.6.1.1.2	Verify drywell to suppression chamber differential pressure does not decrease at a rate ≥ {0.25} inch water gauge per minute tested over a {10} minute period at an initial differential pressure of {1} psid. increase is ≤ {1} with a drywell to suppression chamber [M2]	{24 months} CLB2 AND -----NOTE----- Only required after two consecutive tests fail and continues until two consecutive tests pass ---------- PA1 {24 months} RAI 3.6.1.1-3

{12}

XT

Revision E

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

RAI 3.6.1.1-4

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 Not used.

CLB2 The brackets have been removed on the ITS SR 3.6.1.1.2 Frequency and changed from 18 months to 24 months as currently required by CTS 4.7.A.5.d.

RAI 3.6.1.1-6

CLB3 ITS SR 3.6.1.1 has been revised to reflect CTS Amendment 234 (which implemented 10 CFR 50, Appendix J, Option B). The hydrostatic and pneumatic test leakage limits for the LPCI and Core Spray (CS) System air operated testable check valves were not addressed by Amendment 234. Amendment 40 established the current leakage limits for the LPCI and CS testable check valves and thus ITS SR 3.6.1.1 is revised to specifically exclude the testable check valve testing from the Primary Containment Leakage Rate Test Program leakage limits and testing schedule. ITS SR 3.6.1.3.11 specifies the leakage limits and testing Frequency for the LPCI and CS testable check valves.

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

PA1 Editorial changes have been made for enhanced clarity or to correct a grammatical/typographical error.

RAI 3.6.1.1-3

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 ITS SR 3.6.1.1.2 has been revised to reflect UFSAR Section 5.2.4.4.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

RAI 3.6.1.1-4

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler Number 52, Revision 3, have been incorporated into the revised Improved Technical Specifications.

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

None

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS: 3.6.1.1 - PRIMARY CONTAINMENT

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

X1 ITS SR 3.6.1.1.2, second Frequency to verify drywell to suppression chamber differential pressure leakage rate, in accordance with the Note condition, when two consecutive tests fail and continues until two consecutive tests pass, has been included. The Frequency of 12 months is half of the normal Frequency of ITS SR 3.6.1.1.2 (CTS 4.7.A.5.d) which is consistent with the philosophy utilized in NUREG-1433.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

MARKUP OF NUREG-1433, REVISION 1, BASES

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1.1 Primary Containment

BASES

BACKGROUND

The function of the primary containment is to isolate and contain fission products released from the Reactor Primary System following a Design Basis Accident (DBA) and to confine the postulated release of radioactive material. The primary containment consists of a steel lined, reinforced concrete vessel (shell) surrounds the Reactor Primary System and provides an essentially leak tight barrier against an uncontrolled release of radioactive material to the environment.

The isolation devices for the penetrations in the primary containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

1. capable of being closed by an OPERABLE automatic containment isolation system, or

2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)";

b. The primary containment air lock is OPERABLE, except as provided in LCO 3.6.1.2, "Primary Containment Air Lock";

c. All equipment hatches are closed; and

d. The pressurized sealing mechanism associated with a penetration is OPERABLE, except as provided in LCO 3.6.1.[ ].

This Specification ensures that the performance of the primary containment, in the event of a DBA, meets the assumptions used in the safety analyses of References 1 and 2. SR 3.6.1.1.1 leakage rate requirements are in specified in the Primary Containment Leakage Rate Testing Program which is

(continued)

Revision E

RAI 3.6.1.1-4 TSTF-52, R3

Option B

TA1

BASES

BACKGROUND (continued) conformance with 10 CFR 50, Appendix J (Ref. 3), as modified by approved exemptions.

APPLICABLE SAFETY ANALYSES The safety design basis for the primary containment is that it must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate.

DA2

Loss of Coolant Accident (LOCA)

The DBA that postulates the maximum release of radioactive material within primary containment is a LOCA. In the analysis of this accident, it is assumed that primary containment is OPERABLE such that release of fission products to the environment is controlled by the rate of primary containment leakage.

Analytical methods and assumptions involving the primary containment are presented in References 1 and 2. The safety analyses assume a nonmechanistic fission product release following a DBA, which forms the basis for determination of offsite doses. The fission product release is, in turn, based on an assumed leakage rate from the primary containment. OPERABILITY of the primary containment ensures that the leakage rate assumed in the safety analyses is not exceeded.

TA1

design basis LOCA

1.5 CLB3

RAI 3.6.1.1-4 TSTF-52, R3

The maximum allowable leakage rate for the primary containment (L_a) is [1.2]% by weight of the containment air per 24 hours at the maximum peak containment pressure (P_a) of [57.5] psig or [0.84]% by weight of the containment air per 24 hours at the reduced pressure of P_t ([28.8] psig) (Ref. 1).

CLB3

45

Primary Containment Leakage Rate Testing Program

Primary containment satisfies Criterion 3 of the NRC Policy Statement.

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

X1

Primary Containment LCO Leakage Rate Testing Program

Primary containment OPERABILITY is maintained by limiting leakage to $\leq 1.0\ L_a$, except prior to the first startup after performing a required 10 CFR 50 Appendix J leakage test. At this time, the combined Type B and C leakage must be $< 0.6\ L_a$, and the overall Type A leakage must be $< 0.75\ L_a$. Compliance with this LCO will ensure a primary containment configuration, including equipment hatches, that is

RAI 3.6.1.1-4 TSTF-52, R3

TA1

the applicable leakage limits must be met.

(continued)

BASES

LCO (continued)

structurally sound and that will limit leakage to those leakage rates assumed in the safety analyses. (ELBI)

Individual leakage rates specified for the primary containment air lock are addressed in LCO 3.6.1.2. (S) (DBS)

and specified in the Primary Containment Leakage Rate Testing Program

APPLICABILITY

In MODES 1, 2, and 3, a DBA could cause a release of radioactive material to primary containment. In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, primary containment is not required to be OPERABLE in MODES 4 and 5 to prevent leakage of radioactive material from primary containment.

ACTIONS

A.1

In the event primary containment is inoperable, primary containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining primary containment OPERABILITY during MODES 1, 2, and 3. This time period also ensures that the probability of an accident (requiring primary containment OPERABILITY) occurring during periods where primary containment is inoperable is minimal.

B.1 and B.2

If primary containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to 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.

(continued)

Failure to meet the Low Pressure Coolant Injection (LPCI) or Core Spray (CS) System injection line air operated testable check valve leakage limit (SR 3.6.1.3.11) does not result in failure of this SR since the LPCI and CS testable check valve leakage is not included in the Primary Containment Leakage Testing Program limits (Ref. 5 and 6)

RAI 36.1.1-6

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1

Maintaining the primary containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of [10 CFR 50, Appendix J (Ref. 3), as modified by approved exemptions. Failure to meet air lock leakage testing (SR 3.6.1.2.1), [secondary containment bypass leakage (SR 3.6.1.3.12),] [resilient seal primary containment purge valve leakage testing (SR 3.6.1.3.7),] or main steam isolation valve leakage (SR 3.6.1.3.[13]) does not necessarily result in a failure of this SR. The impact of the failure to meet these SRs must be evaluated against the Type A, B, and C acceptance criteria of [10 CFR 50, Appendix J, as modified by approved exemptions (Ref. 3)]. As left leakage prior to the first startup after performing a required [10 CFR 50, Appendix J] leakage test is required to be ≤0.6 L_a for combined Type B and C leakage, and ≤0.75 L_a for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by [10 CFR 50, Appendix J (Ref. 3), as modified by approved exemptions]. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply.

Primary Containment Leakage Rate Testing Program

RAI 3.6.1.1-4
TSTF-52, R3

SR 3.6.1.1.2

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through the downcomers into the suppression pool. This SR measures drywell to suppression chamber differential pressure during a [10] minute period to ensure that the leakage paths that would bypass the suppression pool are within allowable limits.

is a leak test that confirms that the bypass area between the drywell and suppression chamber is less than the equivalent of a one inch diameter plate orifice (Ref. 6). This ensured that the

Satisfactory performance of this SR can be achieved by establishing a known differential pressure between the drywell and the suppression chamber and verifying that the pressure in either the suppression chamber or the drywell does not change by more than [0.25] inch of water per minute over a 10 minute period. The leakage test is performed every [18 months]. The [18 month] Frequency was developed

RAI 3.6.1.1-3

(continued)

Revision E

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.2 (continued)

considering it is prudent that this Surveillance be performed during a unit outage and also in view of the fact that component failures that might have affected this test are identified by other primary containment SRs. Two consecutive test failures, however, would indicate unexpected primary containment degradation; in this event, as the Note indicates, increasing the Frequency to once every 9 months is required until the situation is remedied as evidenced by passing two consecutive tests.

REFERENCES

1. FSAR, Section 6.2.
2. FSAR, Section 15.1.39.
3. 10 CFR 50, Appendix J, Option B
4. 10 CFR 50.36 (c)(2)(ii)
5. License Amendment 40, dated November 9, 1978.
6. License Amendment 234, dated October 4, 1996.

RAI 3.6.1.1-4
TTF-S1,R3

RAI 3.6.1.1-6

Revision E

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

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

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.6.1.1 - PRIMARY CONTAINMENT

RAI 3.6.1.1-4

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 Not used.

CLB2 The brackets have been removed on the ITS SR 3.6.1.1.2 Frequency and changed from 18 months to 24 months as currently required by CTS 4.7.A.5.d. The proper justification for performing this test is included. The test can be performed safely during plant operation.

CLB3 The bracketed values have been corrected consistent with the Primary Containment Leakage Rate Testing Program.

RAI 3.6.1.1-6

CLB4 ITS SR 3.6.1.1.1 Bases have been revised to reflect Primary Containment Leakage Rate Test Program test Frequency and leakage test and test Frequency are not applicable to the Low Pressure Coolant Injection (LPCI) and Core Spray (CS) System injection line air operated testable check valves. CTS Amendment 40 established the hydrostatic and pneumatic test leakage limits for the LPCI and CS testable check valves and the limits and test Frequency were not addressed or changed by CTS Amendment 234 which implemented 10 CFR 50, Appendix J, Option B. In ITS the leakage limits and test Frequency for the LPCI and CS System testable check valves are specified in ITS SR 3.6.1.3.11.

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

PA1 Changes have been made/additions, deletions, and/or changes to the NUREG to reflect the plant specific nomenclature, number, reference, system description, or analysis description.

PA2 Editorial changes have been made for enhanced clarity, be consistent with other places in the Specifications, or to correct a grammatical/typographical error.

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 ISTS 3.6.1.1 has been revised to reflect that, JAFNPP penetration designs do not include pressurized sealing mechanisms.

DB2 ITS 3.6.1.1 has been revised to reflect the specific JAFNPP reference requirements of, UFSAR, Section 5.2, Primary Containment System.

DB3 ITS 3.6.1.1 has been revised to reflect the specific JAFNPP reference requirements of, UFSAR, Section 14.6.1.3, Loss-Of-Coolant Accident.

DB4 ITS SR 3.6.1.1.2 has been revised to reflect UFSAR, Section 5.2.4.4.

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1433, REVISION 1
ITS BASES: 3.6.1.1 - PRIMARY CONTAINMENT

DB5 ITS 3.6.1.1 has been revised to reflect that the JAFNPP design which includes two primary containment air locks.

RAI 3.6.1.1-4

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler Number 52, Revision 3, have been incorporated into the revised Improved Technical Specifications.

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.

X2 ITS LCO 3.6.1.1 Bases has been revised to reflect the existence of a requirement to limit leakage from the drywell to the suppression chamber to ensure the pressure suppression function is maintained and the primary containment pressure does not exceed design limits.

X3 ITS SR 3.6.1.1.1 has been revised to reflect changes to ISTS 3.6.1.3 requirements at JAFNPP, that ISTS SR 3.6.1.3.12 and SR 3.6.1.3.7 were deleted in accordance with ITS 3.6.1.3, CLB9 and CLB1 respectively, and that subsequent Surveillances have been renumbered accordingly.

X4 ITS SR 3.6.1.1.2, second Frequency to verify drywell to suppression chamber differential pressure leakage rate, in accordance with the Note condition, when two consecutive tests fail and continues until two consecutive tests pass, has been included. The Frequency of 12 months is half of the normal Frequency in ITS 3.6.1.1.2 (CTS 4.7.A.5.d) which is consistent with the philosophy utilized in NUREG-1433, Revision 1.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.1

Primary Containment

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.6 CONTAINMENT SYSTEMS

3.6.1.1 Primary Containment

LCO 3.6.1.1 Primary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Primary containment inoperable.	A.1 Restore primary containment to OPERABLE status.	1 hour
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1.1	Perform required visual examinations and leakage rate testing except for primary containment air lock and Low Pressure Coolant Injection and Core Spray System injection line air operated testable check valve testing, in accordance with the Primary Containment Leakage Rate Testing Program.	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.1.2	Verify suppression chamber pressure increase is ≤ 0.25 in. water guage/minute over a 10 minute period with a drywell to suppression chamber differential pressure of ≥ 1 psi.	24 months AND -----NOTE------ Only required after two consecutive tests fail and continues until two consecutive tests pass ---------- 12 months

RAI 3.6.1.1-4/TSTF-52, R3
RAI 3.6.1.1-6
RAI 3.6.1.1-3

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1.1 Primary Containment

BASES

BACKGROUND

The function of the primary containment is to isolate and contain fission products released from the Reactor Primary System following a Design Basis Loss of Coolant Accident (LOCA) and to confine the postulated release of radioactive material. The primary containment consists of the drywell (a steel pressure vessel in the shape of an inverted light bulb) and the suppression chamber (a steel pressure vessel in the shape of a torus) located below and encircling the drywell. The primary containment surrounds the Reactor Coolant System and provides an essentially leak tight barrier against an uncontrolled release of radioactive material to the environment.

The isolation devices for the penetrations in the primary containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

   2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)";

b. The primary containment air lock is OPERABLE, except as provided in LCO 3.6.1.2, "Primary Containment Air Locks"; and

c. All equipment hatches are closed.

This Specification ensures that the performance of the primary containment, in the event of a Design Basis Accident (DBA), meets the assumptions used in the safety analyses of References 1 and 2. SR 3.6.1.1.1 leakage rate requirements are specified in the Primary Containment Leakage Rate Testing Program which is in conformance with 10 CFR 50,

RAI 3.6.1.1-5

(continued)

BASES

BACKGROUND (continued)

Appendix J, Option B (Ref. 3), as modified by approved exemptions.

APPLICABLE SAFETY ANALYSES

The safety design basis for the primary containment is that it must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate.

The DBA that postulates the maximum release of radioactive material within primary containment is a Loss of Coolant Accident (LOCA). In the analysis of this accident, it is assumed that primary containment is OPERABLE such that release of fission products to the environment is controlled by the rate of primary containment leakage.

Analytical methods and assumptions involving the primary containment are presented in References 1 and 2. The safety analyses assume a nonmechanistic fission product release following a DBA, which forms the basis for determination of offsite doses. The fission product release is, in turn, based on an assumed leakage rate from the primary containment. OPERABILITY of the primary containment ensures that the leakage rate assumed in the safety analyses is not exceeded.

The maximum allowable leakage rate for the primary containment (L_a) is 1.5% by weight of the containment air per 24 hours at the design basis LOCA maximum peak containment pressure (P_a) of 45 psig (Primary Containment Leakage Rate Testing Program).

Primary containment satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii) (Ref. 4).

RAI 3.6.1.1-4 TSTF-52, R3

LCO

Primary containment OPERABILITY is maintained by limiting leakage to $\leq 1.0\ L_a$, except prior to the first startup after performing a required Primary Containment Leakage Rate Testing Program leakage test. At this time the applicable leakage limits must be met. Compliance with this LCO will ensure a primary containment configuration, including equipment hatches, that is structurally sound and that will limit

(continued)

BASES

LCO (continued)

leakage to those leakage rates assumed in the safety analyses.

Individual leakage rates for the primary containment air locks are addressed in LCO 3.6.1.2 and specified in the Primary Containment Leakage Testing Program.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could cause a release of radioactive material to primary containment. In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, primary containment is not required to be OPERABLE in MODES 4 and 5 to prevent leakage of radioactive material from primary containment.

ACTIONS

A.1

In the event primary containment is inoperable, primary containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining primary containment OPERABILITY during MODES 1, 2, and 3. This time period also ensures that the probability of an accident (requiring primary containment OPERABILITY) occurring during periods where primary containment is inoperable is minimal.

B.1 and B.2

If primary containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to 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.

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1

Maintaining the primary containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of the Primary Containment Leakage Rate Testing Program. Failure to meet the air lock leakage limit (SR 3.6.1.2.1), or the main steam isolation valve leakage limit (SR 3.6.1.3.10) does not necessarily result in a failure of this SR. The impact of the failure to meet these SRs must be evaluated against the Type A, B, and C acceptance criteria of the Primary Containment Leakage Rate Testing Program. Failure to meet the Low Pressure Coolant Injection (LPCI) or Core Spray (CS)System injection line air operated testable check valve leakage limit (SR 3.6.1.3.11) does not result in failure to meet this SR since the LPCI and CS testable check valve leakage is not included in the Primary Containment Leakage Rate Testing Program limits (Ref. 5 and 6).

RAI 3.6.1.1-6

As left leakage, prior to startup after performing a required Primary Containment Leakage Rate Testing Program leakage test, is required to be $\leq 0.6\ L_a$ for combined Type B and C leakage, and $\leq 0.75\ L_a$ for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of $\leq 1.0\ L_a$. At $\leq 1.0\ L_a$ the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

SR 3.6.1.1.2

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through the downcomers into the suppression pool. This SR is a leak test that confirms that the bypass area between the drywell and suppression chamber is less than the equivalent of a one inch diameter plate orifice (Ref. 1). This ensures that the leakage paths that would bypass the suppression pool are within allowable limits.

RAI 3.6.1.1-3

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.2 (continued)

Satisfactory performance of this SR can be achieved by establishing a known differential pressure between the drywell and the suppression chamber (≥ 1 psi)and verifying that the pressure in the suppression chamber does not increase by more than 0.25 inches of water per minute over a 10 minute period. The leakage test is performed every 24 months. The 24 month Frequency was developed considering the fact that component failures that might have affected this test are identified by other primary containment SRs. Two consecutive test failures, however, would indicate unexpected primary containment degradation; in this event, as the Note indicates, increasing the Frequency to once every 12 months is required until the situation is remedied as evidenced by passing two consecutive tests.

RAI 3.6.1.1-3

REFERENCES

1. UFSAR, Section 5.2.
2. UFSAR, Section 14.6.1.3.
3. 10 CFR 50, Appendix J, Option B.
4. 10 CFR 50.36(c)(2)(ii).
5. License Amendment 40, dated November 9, 1978.
6. License Amendment 234, dated October 4, 1996.

RAI 3.6.1.1-6

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.2

Primary Containment Air Locks

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: 3.6.1.2

Primary Containment Air Locks

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

Specification 3.6.1.2 (A1)

1.0 (cont'd)

See ITS 1.0

1. **Refuel Mode** - The reactor is in the refuel mode when the Mode Switch is in the Refuel Mode position. When the Mode Switch is in the Refuel position, the refueling interlocks are in service.

2. **Run Mode** - In this mode the reactor system pressure is at or above 850 psig and the Reactor Protection System is energized with APRM protection (excluding the 15 percent high flux trip) and the IRM interlocks in service.

3. **Shutdown Mode** - The reactor is in the shutdown mode when the Reactor Mode Switch is in the Shutdown Mode position.

   a. Hot shutdown means conditions as above with reactor coolant temperature >212°F.

   b. Cold shutdown means conditions as above with reactor coolant temperature ≤212°F. and the reactor vessel vented.

4. **Startup/Hot Standby** - In this mode the low pressure main steam line isolation valve closure trip is bypassed, the Reactor Protection System is energized with APRM (15 percent) and IRM neutron monitoring system trips and control rod withdrawal interlocks in service.

J. **Operable** - A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

K. **Operating** - Operating means that a system or component is performing its intended functions in its required manner.

L. **Operating Cycle** - Interval between the end of one refueling outage and the end of the subsequent refueling outage.

3.6.1.2

M. **Primary Containment (Integrity)** - (air locks) (A2)
Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

See ITS 3.6.1.1

1. All manual containment isolation valves on lines connected to the Reactor Coolant System or containment which are not required to be open during plant accident conditions are closed. These valves may be

See ITS 3.6.1.3

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Page 1 of 4

Specification 3.6.1.2 (A1)

1.0 (cont'd)

opened to perform necessary operational activities. (See ITS: 3.6.1.3)

2. At least one door in each airlock is closed and sealed. (both) (M1) (operable) (LA1) (LCO 3.6.1.2)

3. All automatic containment isolation valves are operable or de-activated in the isolated position. (See ITS: 3.6.1.3)

4. All blind flanges and manways are closed. (See ITS: 3.6.1.1)

N. Rated Power - Rated power refers to operation at a reactor power of 2,536 MWt. This is also termed 100 percent power and is the maximum power level authorized by the operating license. Rated steam flow, rated coolant flow, rated nuclear system pressure, refer to the values of these parameters when the reactor is at rated power (Reference 1).

O. Reactor Power Operation - Reactor power operation is any operation with the Mode Switch in the Startup/Hot Standby or Run position with the reactor critical and above 1 percent rated thermal power.

P. Reactor Vessel Pressure - Unless otherwise indicated, reactor vessel pressures listed in the Technical Specifications are those measured by the reactor vessel steam space sensor.

Q. Refueling Outage - Refueling outage is the period of time between the shutdown of the unit prior to refueling and the startup of the Plant subsequent to that refueling.

R. Safety Limits - The safety limits are limits within which the reasonable maintenance of the fuel cladding integrity and the reactor coolant system integrity are assured. Violation of such a limit is cause for unit shutdown and review by the Nuclear Regulatory Commission before resumption of unit operation. Operation beyond such a limit may not in itself result in serious consequences but it indicates an operational (See ITS: Chapter 1.0)

(See ITS: Chapter 1.0)

deficiency subject to regulatory review.

S. Secondary Containment Integrity - Secondary containment integrity means that the reactor building is intact and the following conditions are met:

1. At least one door in each access opening is closed. (See ITS: 3.6.4.1)

2. The Standby Gas Treatment System is operable. (See ITS: 3.6.4.3)

3. All automatic ventilation system isolation valves are operable or secured in the isolated position. (See ITS: 3.6.4.2)

T. Surveillance Frequency Notations / Intervals

The surveillance frequency notations / intervals used in these specifications are defined as follows:

Notations	Intervals	Frequency
D	Daily	At least once per 24 hours
W	Weekly	At least once per 7 days
M	Monthly	At least once per 31 days
Q	Quarterly or every 3 months	At least once per 92 days
SA	Semiannually or every 6 months	At least once per 184 days
A	Annually or Yearly	At least once per 366 days
18M	18 Months	At least once per 18 months (550 days)
R	Operating Cycle	At least once per 24 months (731 days)
S/U		Prior to each reactor startup
NA		Not applicable

(See ITS: Chapter 1.0 Section 5.5)

Specification 3.6.1.2 A1

3.7 (cont'd)	4.7 (cont'd)

(2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 10°F above the normal power operation limit specified in (1) above. In connection with such testing, the pool temperature must be reduced to below the normal power operation limit specified in (1) above within 24 hours.

See ITS: 3.6.2.1

(3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal power operation limit specified in (1) above.

(4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120°F.

A2 airlocks operable A2

A3 add Note 1 to SR 3.6.1.2.1

A5 add Note 2 to SR 3.6.1.2.1

LCO 3.6.1.2

2. Primary containment ~~integrity~~ shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel, except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 MWt.

See ITS: 3.10.8

APPLICABILITY MODES 1, 2, and 3 M4

2. a. Perform required visual examination and leakage rate testing of the Primary Containment in accordance with the Primary Containment Leakage Rate Testing Program.

SR 3.6.1.2.1

b. Demonstrate leakage rate through each MSIV is ≤ 11.5 scfh when tested at ≥ 25 psig. The testing frequency is in accordance with the Primary Containment Leakage Rate Testing Program.

See ITS: 3.6.1.3

c. Once per 24 months, demonstrate the leakage rate of 10AOV-68A,B for the Low Pressure Coolant Injection system and 14AOV-13A,B for the Core Spray system to be less than 11 scfm per valve when pneumatically tested at ≥ 45 psig at ambient temperature, or less than 10 gpm per valve if hydrostatically tested at ≥ 1,035 psig at ambient temperature.

M3 & M4

L5 add proposed Note 2 to ACTIONS

A5 add proposed Note 3 to ACTIONS

L1 add proposed Note 1 to ACTIONS

M1 add proposed ACTION A

L2 add proposed Note 2 to ACTION A

M2 add proposed ACTION B

M2 add proposed SR 3.6.1.2.2

Specifications 3.6.1.2 (A1)

3.7 (Cont'd)	4.7 (Cont'd)
(1) The drywell to torus differential pressure shall be established within 24 hours of exceeding 15% rated thermal power during startup. The differential pressure may be reduced to less than the limit up to 24 hours prior to reducing thermal power to less than 15% of rated before a plant shutdown.	See ITS: 3.6.2.4
(2) The differential pressure may be decreased to less than 1.7 psid for a maximum of four (4) hours during required operability testing of the HPCI, RCIC, and Suppression Chamber - Drywell Vacuum Breaker System.	
(3) If 3.7.A.7.a above cannot be met, restore the differential pressure to within limits within eight hours or reduce thermal power to less than 15% of rated within the next 12 hours.	
ACTION D 8. If the specifications of 3.7.A.1 through 3.7.A.5 cannot be met the reactor shall be in the cold condition within 24 (36) (L4) hours.	8. Not applicable.

add proposed ACTION C (L3)

in MODE 3 12 hours (M3)

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.2

Primary Containment Air Locks

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

RAI 3.6.1.2-3

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 that do not result in technical changes. Editorial changes, reformatting, and revised numbering are adopted to make the ITS consistent with the conventions in NUREG-1434 "Standard Technical Specifications, General Electric Plants, BWR/6", Revision 1 (i.e., Improved Standard Technical Specifications (ISTS)).

A2 CTS 3.7.A.2 reference to "Primary Containment Integrity" has been deleted since the CTS 1.0.M definition of Primary Containment Integrity is incorporated into ITS 3.6.1.1, 3.6.1.2, and 3.6.1.3 and is no longer maintained as a separate definition in the ITS. Proposed ITS 3.6.1.2 requires that the primary containment air locks shall be OPERABLE. The definition of OPERABLE and the subsequent ITS 3.6.1.2 LCO, ACTIONs, and Surveillances are sufficient to encompass the requirements of the CTS definition for airlock requirements. This change removes any confusion which may exist between the definition and the specific requirements of the LCO and is a presentation preference consistent with NUREG 1434, Revision 1. Since, all aspects of the Primary Containment Integrity definition requirements, along with the remainder of the LCOs in the Containment Systems Primary Containment section (i.e., primary containment, isolation valves, suppression pool, etc.) are maintained in subsequent Specifications of ITS this change is considered to be administrative only.

A3 CTS 4.7.A.2.a is modified by Note 1. Proposed ITS SR 3.6.1.2.1 NOTE states, "An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test."

Since the inoperability affects only one door, the barrel and the other OPERABLE door are providing a sufficient containment barrier. Even though the overall test acceptance criteria may not be satisfied (SR 3.0.1 would normally require this to result in declaring the LCO not met - possibly requiring proposed Condition C to be entered), the Note clarifies the intent that the previous test not be considered "not met." Adding this Note, is consistent with the CTS 1.0.M Primary Containment Integrity condition requirement that at least one door in each air lock is closed and sealed, and the Required Actions of ITS 3.6.1.2 Condition A allowing for one door in an air lock being INOPERABLE. Therefore, this change is considered to be an administrative change.

DISCUSSION OF CHANGES
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

RAI 3.6.1.2-1

ADMINISTRATIVE CHANGES

A4 Not Used.

A5 CTS 3.7.A.2 has been modified by addition of a Note. Proposed ITS 3.6.1.2 ACTIONS Note 3 requirement, to enter the applicable Conditions and Required Actions of ITS 3.6.1.1, Primary Containment, when air lock leakage exceeds the overall Primary Containment leakage rate acceptance criteria, establishes the need to consider the Primary Containment OPERABILITY if the air lock leakage acceptance criteria is not being met. This change is consistent with the relationship of containment integrity and air lock OPERABILITY established in the CTS 1.0.M definition of Containment Integrity. In addition, CTS 4.7.A.2.a (the primary containment airlock leakage surveillance test) is modified by Note 2. Note 2 of ITS SR 3.6.1.2.1 states that the "Results shall be evaluated against criteria applicable to SR 3.6.1.1.1". SR 3.6.1.1.1 is the primary containment leakage rate test. This will ensure that air lock leakage is properly accounted for in determining the combined Type B and C primary containment leakage. These Notes are considered administrative since CTS 4.7.A.2.a currently applies to both Type B and C testing and consistent with the design basis analysis.

RAI 3.6.1.2-3

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.7.A.2 requirement, for primary containment integrity (as defined in CTS 1.0.M, which requires only, that at least one door in each air lock is closed and sealed), is being revised. NUREG-1434, Revision 1, ITS 3.6.1.2 Bases for air lock OPERABILITY, requires that both air lock doors be OPERABLE. As a result of this requirement, ITS 3.6.1.2 Condition A, for one or more primary containment air locks with one primary containment air lock door INOPERABLE, associated Required Actions, and Completion Times, has been added. This change is acceptable since it establishes the Required Actions and associated Completion Times which ensure that an acceptable primary containment leakage boundary is maintained. Since, this change imposes additional operational requirements, it constitutes a more restrictive change. This change is not considered to result in any reduction to safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

M2 ITS SR 3.6.1.2.2, to verify that only one door in the primary containment air lock can be opened at a time, has been added. CTS 4.7.A.2 does not have a requirement to ensure the interlock mechanism is OPERABLE. The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. This prevents the primary containment from being INOPERABLE due to both air lock doors being open at the same time. In addition ITS 3.6.1.2 ACTION B, for one or more primary containment air locks with primary containment air lock interlock mechanism INOPERABLE, associated Required Actions, and Completion Times, has also been added. This change is acceptable since it establishes the Required Actions and associated Completion Times and Surveillance Requirements which ensure that an acceptable primary containment leakage boundary is maintained. The addition of new Surveillance Requirements and ACTIONS imposes additional operational requirements, and constitutes a more restrictive change. This change is not considered to result in any reduction to safety.

M3 CTS 3.7.A.8 requirement, that the reactor to be in the cold condition within 24 hours if the requirements of Specification 3.7.A.2 cannot be met, is being changed. ITS 3.6.1.2 Required Action D.1 requires the plant to be in MODE 3 in 12 hours if the Required Action and associated Completion Times for restoring an INOPERABLE air lock are not met. In addition, ITS 3.6.1.2 Required Action D.2 places the plant in MODE 4 in 36 hours (L4). 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 D.1 and D.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-1434, Revision 1.

RAI 3.6.1.2 - 3

M4 The CTS Applicability of the Primary Containment in CTS 3.7.A.2 is whenever the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel. In addition, there is an exception in CTS 3.7.A.2, to not require primary containment integrity to be met during low power physics tests at atmospheric pressure and power levels not to exceed 5 MWt, however any change to this requirement is discussed in the Discussion of Changes for ITS 3.10.8. The scope of the current Applicability covers MODE 1, 3 and portions of MODE 2 operations. The Applicability in ITS 3.6.1.2 is MODES 1, 2 and 3. This change is considered more restrictive since the primary containment air locks will be required to be Operable at all

TECHNICAL CHANGES - MORE RESTRICTIVE

M4 (continued)

times in MODE 2 even prior to any plant startup when reactor coolant temperature may be below 212°F. This change is consistent with NUREG-1434, Revision 1.

RAI 3.6.1.2-3

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 The detail of the CTS definition of Primary Containment Integrity in CTS 1.0.M.2 that at least one door in each airlock is closed and sealed is proposed to be relocated to the Bases. The requirement in ITS LCO 3.6.1.2 that two primary containment air locks shall be Operable, the definition of Operability and the associated Surveillances of ITS 3.6.1.2 are sufficient to ensure the requirements are met. The ITS 3.6.1.2 Bases describes the design of the airlock doors (each of the personnel access hatch doors contains double gasketed seals) and requires them to be closed. As such, these details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to the Bases will be controlled by the provisions of the Bases Control Program described in Chapter 5 of the ITS.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 A Note is being added to the actions of CTS 3.7.A.2 (ITS 3.6.1.2 ACTION Table Note 1) to permit entry through a closed or locked air lock door for the purpose of making repairs. If the outer door is inoperable, then it may be easily accessed for repair. If the inner door is inoperable, however, then it is proposed to allow entry through the OPERABLE outer door, which means there is a short time during which the primary containment boundary is not intact (during access through the outer door).

The proposed allowance will have strict administrative controls, which are detailed in the proposed Bases. A dedicated (i.e., not involved with any repair or other maintenance effort) individual will be assigned to ensure: 1) the door is opened only for the period of time required to gain entry into or exit from the air lock, and 2) any operable door is re-locked prior to the departure of the dedicated individual. Repairs are directed towards reestablishing two OPERABLE doors in the air lock. Two OPERABLE doors closed is clearly the most desirable plant condition for air locks. The existing actions, in some circumstances, allow indefinite operation with only one OPERABLE door locked closed. Two OPERABLE doors closed is clearly an improvement on safety over one

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 (continued)

OPERABLE door locked closed. By not allowing access to make repairs, the existing actions could result in an inability of the plant to establish and maintain this highest level of safety possible (two OPERABLE doors closed), without a forced plant shutdown. Furthermore, the overall air lock test must be performed every 6 months. This could eventually result in a plant shutdown from the inability to properly perform this test due to the inability to affect repairs to the inoperable door. Therefore, allowing entry and exit, while temporarily allowing loss of containment operability, is proposed based on the expected result of restoring two OPERABLE doors to the air lock. Restricting this access to make repairs of an inoperable door or air lock ensures this allowance applies only towards meeting this goal. This change is acceptable due to the low probability of an event that could pressurize the primary containment during the short time in which the containment integrity is compromised, and the increased safety attained by completing repairs such that two OPERABLE doors can be closed.

L2 CTS 3.7.A.2 primary containment integrity (air lock) requirement, for at least one door in each air lock to be closed and sealed (CTS 1.0.M.2), is being revised. ITS 3.6.1.2 Condition A (M1), Required Actions Note 2 is being added. This note allows entry through a closed and/or locked OPERABLE air lock door (for reasons other than repairs) for a limited period of time (i.e., 7 days) if one or both air locks are inoperable (due to the inoperability of one air lock door). Although one OPERABLE air lock door locked closed is sufficient to maintain primary containment integrity and allow continued operation, entry and exit during operation may be necessary to perform Technical Specification (TS) Surveillances and Required Actions, as well as other activities inside primary containment that are required by TS or activities that support TS required equipment. Should access not be allowed, a plant shutdown could be required to attend to these activities.

The proposed allowance requires administrative controls, which are detailed in the Bases. A dedicated (i.e., not involved with any repair or other maintenance effort) individual will be assigned to ensure: 1) the door is opened only for the period of time required for entry or exit from the air lock, and 2) the OPERABLE door is closed and locked prior to the departure of the dedicated individual. This allowance is considered acceptable due to the low probability of an event that could pressurize the primary containment during the short time the OPERABLE door is expected to be open.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 A new Condition and Required Action is being added to CTS 3.7.A.2. ITS 3.6.2.1 ACTION C, for a primary containment air lock inoperable for reasons other than Condition A (one or more primary containment air locks with one primary air lock door inoperable) or B (one or more primary containment air locks with primary containment air lock interlock mechanism inoperable). Since, an inoperable air lock does not necessarily mean the primary containment is inoperable, Required Action C.3 allows up to 24 hours to restore an inoperable air lock to OPERABLE status. Required Action C.1 immediately initiates action to evaluate primary containment overall leakage (OPERABILITY) using current air lock test results. If this evaluation shows the primary containment is inoperable, then proposed Note 3 to the ACTIONS would require the primary containment LCO ACTIONS to be entered (thus, the full 24 hours of this LCO could not be used). If however, the evaluation is satisfactory, the full 24 hours could be utilized since the accident analysis assumptions are still met. In addition, Required Action C.2 verifies, within 1 hour, that a door is closed, consistent with the ACTIONS of LCO 3.6.1.1 that require primary containment be restored to OPERABLE status within 1 hour.

L4 CTS 3.7.A.8 requirement, that the reactor be in the cold condition within 24 hours if the requirements of CTS 3.7.A.2 (3.7.A.1 through 3.7.A.5) cannot be met, is being relaxed. ITS 3.6.1.2 Required Action D.2 allows the plant 36 hours to reach COLD SHUTDOWN (MODE 4). However, ITS 3.6.1.2 Required Action D.1 requires the plant to be in MODE 3 in 12 hours (M3). 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 D.1 and D.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 3.6.1.2, Required Action D.1 will require the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action or Completion Time associated with the primary containment being inoperable cannot be satisfied. 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. This change is consistent with NUREG-1434, Revision 1.

RAI 3.6.1.2-3

DISCUSSION OF CHANGES
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L5 CTS 3.7.A.2 has been modified by addition of a Note. Proposed ITS 3.6.1.2, ACTIONS Note 2, provides specific instructions to allow separate Condition entry for each air lock to ensure proper application of the ACTIONS for Technical Specification compliance. Separate Condition entry for each air lock allows the ACTIONS to be applied to each airlock consistent with the reasons for Condition entry. That is, the specific Condition applicable to each cause of airlock inoperability is allowed to be addressed separately and concurrently for each air lock. Addition of the Note, in conjunction with addressing "...one or more...air lock..." in the Condition statements avoids the need to provide a second series of Conditions that address inoperability of both air locks in addition to Conditions that address inoperabilty of only one air lock. Allowing separate Condition entry for each air lock is consistent with Specification 3.6.1.3, Primary Containment Isolation Valves (PCIVs), with regard to allowing separate Condition entry for each penetration and is consistent with NUREG-1434, Revision 1.

RAI 3.6.1.2-1

TECHNICAL CHANGES - RELOCATIONS

None

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.2

Primary Containment Air Locks

NO SIGNIFICANT HAZARDS CONSIDERATION (NSHC) FOR LESS RESTRICTIVE CHANGES

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 would allow entering and exiting via the OPERABLE door for the purpose of making repairs to a primary containment air lock. Failure of an air lock is not an initiator of any analyzed event. Therefore, the proposed change does not involve an increase in the probability of an accident previously evaluated.

   The change to allow entering and exiting the OPERABLE door for the purpose of making repairs results in a potential increase in consequences should an accident occur while it is open. This increase is minimized through administrative controls and offset by avoiding the potential consequences of an unnecessary transient during shutdown. The potential consequences resulting from the combination of: 1) the frequency of experiencing an inoperable air lock door such that temporarily opening the OPERABLE door is required for access to repair; 2) the brief period the OPERABLE door would be opened for access (typically on the order of one minute per entry/exit); and 3) the occurrence of an event of sufficient magnitude to cause an immediate containment pressure increase such that an air lock door could not be closed; are not significant. The allowance is proposed to have strict administrative control which will provide assurance that any associated potential consequences are minimized. Therefore, these proposed changes do 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 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 primary containment air lock is designed and assumed to be used for entry and exit. Its operation does not interface with the reactor coolant

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CHANGE

2. (continued)

system (RCS) or any controls which could impact the RCS pressure boundary or its support systems. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

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. Containment leak rate limits are unaffected. The proposed change to allow the temporary opening of the one OPERABLE door for the purpose of repairing an inoperable door, is not considered to be a significant reduction in the margin of safety. The combination of: 1) the frequency of experiencing an inoperable air lock door such that containment entry is required for access to repair; 2) the brief period the OPERABLE door would be opened for access (typically on the order of one minute per entry/exit); and 3) the occurrence of an event of sufficient magnitude to cause an immediate containment pressure increase such that the air lock door could not be closed; are not representative of a significant reduction in the margin of safety. The allowance is proposed to have strict administrative control, which will provide assurance that any associated safety reduction is further minimized. Therefore, these proposed changes do not involve a significant reduction in the margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 would allow entering and exiting via the OPERABLE door for a limited period of time to perform Technical Specification (TS) Surveillances and Required Actions, as well as other activities inside primary containment that are required by TS or activities that support TS required equipment. Failure of an air lock is not identified as the initiator of any analyzed event. Therefore, the proposed change does not involve an increase in the probability of an accident previously evaluated.

   The change to allow entering and exiting via the OPERABLE door to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities inside primary containment that are required by TS or activities that support TS required equipment results in a potential increase in consequences should an accident occur while it is open. This potential increase is minimized through administrative controls and offset by avoiding the potential consequences of an unnecessary transient during shutdown. The potential consequences resulting from the combination of: 1) the frequency of experiencing an inoperable air lock door such that temporarily opening the OPERABLE door is required; 2) the brief period the OPERABLE door would be opened for access (typically on the order of one minute per entry/exit); and 3) the occurrence of an event of sufficient magnitude to cause an immediate containment pressure increase such that an air lock door could not be closed; are not considered to be significant. The allowance is proposed to have strict administrative control, which will provide assurance that any associated potential consequences are minimized. Therefore, these proposed changes do 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 proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L2 CHANGE

2. (continued)

normal plant operation, or methods of operation. The primary containment air lock is designed and assumed to be used for entry and exit. Its operation does not interface with the reactor coolant system (RCS) or any controls which could impact the RCS pressure boundary or its support systems. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

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. Containment leak rate limits are unaffected. The proposed change to allow the temporary opening of the one OPERABLE door to perform Technical Specification (TS) Surveillances and Required Actions, as well as other activities inside primary containment that are required by TS or activities that support TS required equipment is not considered to be a significant reduction in the margin of safety. The combination of: 1) the frequency of experiencing an inoperable air lock door such that containment entry is required; 2) the brief period the OPERABLE door would be opened for access (typically on the order of one minute per entry/exit); and 3) the containment pressure increase such that the air lock door could not be closed; are not representative of a significant reduction in the margin of safety. Additionally, providing the ability to eliminate any reduction in safety resulting from the transient of plant shutdown to follow (due to inability to perform the preventive or corrective maintenance) minimizes any reduction in the margin of safety. The allowance is proposed to have strict administrative control which will provide assurance that any associated safety reduction is further minimized. Therefore, these proposed changes do not involve a significant reduction in the margin of safety.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 allows 24 hours to restore the air lock to OPERABLE status prior to requiring a plant shutdown as long as current air lock leakage results are used to determine that overall primary containment leakage rates are acceptable, and one door in the affected air lock(s) is verified closed. The primary containment air lock is not assumed to be an initiator of any analyzed accident. Therefore, the change does not involve a significant increase in the probability of an accident previously analyzed. The change will not allow continuous operation such that it will preclude the air lock function from being performed. The consequences of an event occurring while the plant is operating during the 24 hours is the same as the consequences of an event occurring if the plant were being shutdown. Therefore, the proposed change does not involve a significant increase in the consequences of an accident previously analyzed.

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 system will continue to function in the same way as before the change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

   This change allows 24 hours to restore the air lock to OPERABLE status prior to requiring a plant shutdown as long as current air lock leakage results are used to determine that overall primary containment leakage rates are acceptable, and one door in the affected air lock(s) is verified closed. The 24 hour time allowed to restore the air lock is acceptable based on the small probability of an event requiring the primary containment to function, the desire to minimize plant

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L3 CHANGE

3. (continued)

transients, and the requirement that, if primary containment overall leakage is exceeded, the primary containment actions must be taken (which would require the start of a shutdown within 1 hour). In addition, the change will require one door to be closed within 1 hour. As such, any reduction in a margin of safety will be insignificant and offset by the benefit gained from providing some time to restore the air lock.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L4 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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 involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change modifies the Completion Times for Shutdown Actions when a Required Action and associated Completion Time specified in the Technical Specifications cannot be met. The proposed change does not increase the probability of an accident because the change extends the time allowed for the plant to get 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 the primary containment inoperable. The consequences of an accident are not significantly increased because ITS 3.6.1.2, Required Action D.1 will require that the plant be placed in MODE 3 within 12 hours (M3) once the determination is made that the Required Actions or Completion Times associated with the primary containment air locks cannot be satisfied. 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 does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The shutdown Completion Times are not assumed to be the initiator of any analyzed accident. Therefore, this change will not create the possibility of a

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L4 CHANGE

2. (continued)

new or different kind of accident from any accident previously evaluated.

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

The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The change extends the time allowed for the plant to get to Cold Shutdown from 24 hours to 36 hours when the Required Action or Completion Time associated with inoperable primary containment air lock(s) cannot be satisfied. There is no significant reduction in the margin of safety because ITS 3.6.1.2, Required Action D.1 will require that the plant be placed in MODE 3 within 12 hours (M3) once the determination is made that the Required Actions or Completion Times associated with the primary containment air locks 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.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

RAI 3.6.1.2-1

L5 CHANGE

New York Power Authority has evaluated the proposed Technical Specification change and has concluded that it does not involve a significant hazards consideration. Our conclusion is in accordance with the criteria set forth in 10 CFR 50.92. The bases for the conclusion 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?

   ITS 3.6.1.2, ACTIONS Note 2, is proposed to be added. The Note allows separate Condition entry for each air lock. The change does not involve a significant increase the probability of an accident previously evaluated because allowing separate Condition entry for each air lock does not increase the probability of air lock inoperability and air lock inoperability is not assumed to be the initiator of any accident previously evaluated. Allowing separate Condition entry for each air lock does not increase the consequences of an accident previously evaluated because the time period that an air lock is inoperable is not increased. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The inoperability of one or more air locks or the separate Condition entry to address inoperability of one or more air locks is not assumed to be the initiator of any accident previously evaluated. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

NO SIGNIFICANT HAZARDS CONSIDERATIONS
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

RAI 3.6.1.2-1

L5 CHANGE

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

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 change allows separate Condition entry for each air lock. As such, the change also allows the concurrent (or over-lapping) inoperability of both air locks to be addressed concurrently and thus potentially reduces the time period during which one or more air locks is inoperable by allowing concurrent Required Actions (corrective actions) to be taken. In addition, this change provides the benefit of a reduced potential for a plant event that could challenge safety systems by allowing separate Condition entry for each air lock (which would be necessary in the event of conditions resulting in more than one air lock being inoperable at the same time) by reducing the potential for a required shutdown of the plant under ITS 3.0.3 due to none of the Conditions in ITS 3.6.1.2 being applicable. Therefore, this change does not involve a significant reduction in a margin of safety.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS 3.6.1.2

Primary Containment Air Locks

MARKUP OF NUREG-1434, REVISION 1, SPECIFICATION

RAI 3.6.1.2-3

3.6 CONTAINMENT SYSTEMS

3.6.1.2 Primary Containment Air Locks

[1.0.m.2] [3.7.A.2] [m1] LCO 3.6.1.2 ~~Two~~ primary containment air locks shall be OPERABLE. (PA3)

[3.7.A.2] [m4] APPLICABILITY: MODES 1, 2, and 3.

RAI 3.6.1.2-1

ACTIONS

NOTES

[L1] 1. Entry and exit is permissible to perform repairs of the affected air lock components.

[L5] 2. Separate Condition entry is allowed for each air lock.

[A5] 3. Enter applicable Conditions and Required Actions of LCO 3.6.1.1, "Primary Containment," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.

edit

CONDITION	REQUIRED ACTION	COMPLETION TIME
[m1] A. One or more primary containment air locks with one primary containment air lock door inoperable.	NOTES 1. Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry and exit is permissible for 7 days under administrative controls ~~if both air locks are inoperable~~. [L2] (DB1)	(continued)

edit

RAI 3.6.1.2-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
[m1] A. (continued)	A.1 Verify the OPERABLE door is closed in the affected air lock.	1 hour
	AND	
	A.2 Lock the OPERABLE door closed in the affected air lock.	24 hours
	AND	
	A.3 ----------NOTE---------- Air lock doors in high radiation areas may be verified locked closed by administrative means. ---------- Verify the OPERABLE door is locked closed in the affected air lock.	Once per 31 days
[m2] B. One or more primary containment air locks with primary containment air lock interlock mechanism inoperable.	----------NOTES---------- 1. Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry into and exit from containment is permissible under the control of a dedicated individual. ----------	(continued)

PA4: or areas with limited access due to inerting

PA1: primary

REVISION E

RAI 3.6.1.2-3

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
[M2] B. (continued)	B.1	Verify an OPERABLE door is closed in the affected air lock.	1 hour
	AND		
	B.2	Lock an OPERABLE door closed in the affected air lock.	24 hours PA4
	AND		
	B.3	----------NOTE---------- Air lock doors in high radiation areas or areas with limited access due to inerting may be verified locked closed by administrative means. ----------	
		Verify an OPERABLE door is locked closed in the affected air lock.	Once per 31 days
[L3] C. One or more primary containment air locks inoperable for reasons other than Condition A or B.	C.1	Initiate action to evaluate primary containment overall leakage rate per LCO 3.6.1.1, using current air lock test results.	Immediately
	AND		
	C.2	Verify a door is closed in the affected air lock.	1 hour
	AND		
			(continued)

REVISION E

RAI 3.6.1.2-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
[L3] C. (continued)	C.3 Restore air lock to OPERABLE status.	24 hours
[M3] D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3. AND [L4] D.2 Be in MODE 4.	12 hours 36 hours

RAI 3.6.1.2-3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
[4.7.A.2.a] SR 3.6.1.2.1	----------NOTES---------- 1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria for SR 3.6.1.1.1 in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions. ----------	
[A4]	Perform required primary containment air lock leakage rate testing in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions. The acceptance criteria for air lock testing are: a. Overall air lock leakage rate is ≤ [2 scfh] when tested at ≥ P_a. b. For each door, leakage rate is ≤ [2 scfh] when the gap between the door seals is pressurized to ≥ [1.0 P_a].	----------NOTE---------- SR 3.0.2 is not applicable ---------- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions
SR 3.6.1.2.2	Verify primary containment air lock seal air flask pressure is ≥ [90] psig.	7 days

(continued)

applicable to

TA2

TA2

TA2

DB2

the Primary Containment Leakage Rate Testing Program

TSTF-52, R3
RAI 3.6.1.2-2

RAI 3.6.1.2-3

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.2.6 (2) DB2	NOTE Only required to be performed upon entry or exit through the primary containment air lock. Verify only one door in the primary containment air lock can be opened at a time.	TA1 24 months 184 days
SR 3.6.1.2.4	Verify, from an initial pressure of [90] psig, the primary containment air lock seal pneumatic system pressure does not decay at a rate equivalent to > [2] psig for a period of [48] hours.	[18] months

RAI 3.6.1.2-5
TSTF-17, R2

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS 3.6.1.2

Primary Containment Air Locks

JUSTIFICATION FOR DIFFERENCES (JFDs)
FROM NUREG-1434, REVISION 1

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1434, REVISION 1
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

RAI 3.6.1.2-3

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 Not Used.

RAI 3.6.1.2-2

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

PA1 The word "primary" has been added for clarity and consistency.

PA2 SR 3.6.1.2.1 has been modified with Note 2 consistent with the allowances in Note 3 of the ITS 3.6.1.2 ACTIONS.

PA3 Brackets have been removed and the plant specific value, nomenclature, or terminolgy inserted where appropriate.

PA4 Changes made to allow verification of closure of the air lock doors by administrative means when the primary containment is inerted to reflect the BWR-4 design. The change is consistent with NUREG-1434, Revision 1.

RAI 3.6.1.2-3

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 ITS 3.6.1.2 Condition A Note 2, that entry and exit is permissible for 7 days under administrative control, has been revised. The Note will not include the requirement that both air locks be inoperable. Access through the narrow emergency escape hatch is severely restricted with regards to personnel and equipment. Therefore, the 7 days will apply to the use of the inoperable personnel access hatch even when the emergency escape hatch is operable.

DB2 ISTS SR 3.6.1.2.2 and SR 3.6.1.2-4 have been deleted since the FitzPatrick plant design does not include an air lock seal air system. SR 3.6.1.2-3 has been renumbered to reflect the change.

RAI 3.6.1.2-5

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler number 17, Revision 2, incorporated into the revised Improved Technical Specifications.

RAI 3.6.1.2-2

TA2 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler number 52 Revision 3 have been incorporated into the revised Improved Technical Specifications.

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1434, REVISION 1
ITS: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

RAI 3.6.1.2-3

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 3.6.1.2

Primary Containment Air Locks

MARKUP OF NUREG-1434, REVISION 1, BASES

RAI 3.6.1.2-3

PA1

(personnel access hatch and emergency escape hatch)

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1.2 Primary Containment Air Locks

BASES

BACKGROUND

Two double door primary containment air locks have been built into the primary containment to provide personnel access to the primary containment and to provide primary containment isolation during the process of personnel entry and exit. The air locks are designed to withstand the same loads, temperatures, and peak design internal and external pressures as the primary containment (Ref. 1). As part of the primary containment, the air lock limits the release of radioactive material to the environment during normal unit operation and through a range of transients and accidents up to and including postulated Design Basis Accidents (DBAs).

PA2

S

PA1

Each of the personnel access hatch doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in primary containment internal pressure results in increased sealing force on each door).

Each air lock door has been designed and tested to certify its ability to withstand pressure in excess of the maximum expected pressure following a DBA in primary containment. Each of the doors has inflatable seals that are maintained > [60] psig by the seal air flask and pneumatic system, which is maintained at a pressure ≥ [90] psig. Each door has two seals to ensure they are single failure proof in maintaining the leak tight boundary of primary containment.

DB3

Each air lock is nominally a right circular cylinder, 10 ft 2 inches in diameter, with doors at each end that are interlocked to prevent simultaneous opening. The air locks are provided with limit switches on both doors in each air lock that provide control room indication of door position. [Additionally, control room indication is provided to alert the operator whenever an air lock interlock mechanism is defeated.] During periods when primary containment is not required to be OPERABLE, the air lock interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent primary containment entry is necessary. Under some conditions, as allowed by this LCO, the primary containment may be accessed through the air lock when the door interlock mechanism has failed, by manually performing the interlock function.

DB2

PA2

The primary containment air locks form part of the primary containment pressure boundary. As such, air lock integrity and leak tightness are essential for maintaining primary containment leakage rate to within limits in the event of a

the

(continued)

BASES

BACKGROUND (continued)

DBA. Not maintaining air lock integrity or leak tightness may result in a leakage rate in excess of that assumed in the unit safety analysis.

APPLICABLE SAFETY ANALYSES

The DBA that postulates the maximum release of radioactive material within primary containment is a LOCA. In the analysis of this accident, it is assumed that primary containment is OPERABLE, such that release of fission products to the environment is controlled by the rate of primary containment leakage. The primary containment is designed with a maximum allowable leakage rate (L_a) of 0.43% by weight of the containment (and drywell) air per 24 hours at the calculated maximum peak containment pressure (P_a) of 11.5 psig. This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air locks.

Primary containment air lock OPERABILITY is also required to minimize the amount of fission product gases that may escape primary containment through the air lock and contaminate and pressurize the secondary containment.

Primary containment air locks satisfy Criterion 3 of the NRC Policy Statement.

LCO

As part of the primary containment, the air lock's safety function is related to control of containment leakage rates following a DBA. Thus, the air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

The primary containment air locks are required to be OPERABLE. For each air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be OPERABLE. The interlock allows only one air lock door to be open at a time. This provision ensures that a gross breach of primary containment does not exist when primary containment is required to be OPERABLE. Closure of a single door in each air lock is

(continued)

RAI 3.6.1.2-2
TSTF-52, R3

RAI 3.6.1.2-3

RAI 3.6.1.2-2
TSTF-52, R3

BASES

LCO (continued)

sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock is not being used for normal entry into and exit from primary containment.

OR

TA2

APPLICABILITY

In MODES 1, 2, and 3, a DBA could cause a release of radioactive material to primary containment. In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the primary containment air locks are not required to be OPERABLE in MODES 4 and 5 to prevent leakage of radioactive material from primary containment.

PA2

ACTIONS

The ACTIONS are modified by Note 1, which allows entry and exit to perform repairs of the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door, then it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the primary containment boundary is not intact (during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the primary containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the primary containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed.

PA2

allowance

Note 2 has been included to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

(continued)

BASES

ACTIONS (continued)

The ACTIONS are modified by a third Note, which ensures appropriate remedial actions are taken when necessary. Pursuant to LCO 3.0.6, ACTIONS are not required even if primary containment is exceeding its leakage limit. Therefore, the Note is added to require ACTIONS for LCO 3.6.1.1, "Primary Containment," to be taken in this event.

A.1, A.2, and A.3

With one primary containment air lock door inoperable in one or more primary containment air locks, the OPERABLE door must be verified closed (Required Action A.1) in each affected air lock. This ensures that a leak tight primary containment barrier is maintained by the use of an OPERABLE air lock door. This action must be completed within 1 hour. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1.1, which requires that primary containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the OPERABLE air lock door within the 24 hour Completion Time. The 24 hour Completion Time is considered reasonable for locking the OPERABLE air lock door, considering the OPERABLE door of the affected air lock is being maintained closed.

Required Action A.3 ensures that the affected air lock with an inoperable door has been isolated by the use of a locked closed OPERABLE air lock door. This ensures that an acceptable primary containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate given the low likelihood of a locked door being mispositioned and other administrative controls.

Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

(continued)

REVISION E

RAI 3.6.1.2-3

If air lock leakage results in exceeding overall containment leakage rate acceptance criteria

PA2

La

leakage

PA2

penetration

PA2

given

PA7

Or areas with limited access due to inerting

RAI 3.6.1.2-3

BASES

ACTIONS

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

PA2

The required administrative controls consist of stationing a dedicated individual to assure closure of the OPERABLE door except during the entry and exit, and to assure the OPERABLE door is relocked after completion of the containment entry and exit.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the air lock are inoperable. With both doors in the air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls if both air locks have an inoperable door. This 7 day restriction begins when the second air lock is discovered inoperable.

PA5

affected

DB1

Primary containment entry may be required to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside primary containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-related activities) if the primary containment was entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the primary containment during the short time that the OPERABLE door is expected to be open.

PA4

B.1, B.2, and B.3

With an air lock interlock mechanism inoperable in one or both primary containment air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in one air lock are inoperable. With both doors in the air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. Note 2 allows entry into and exit from the primary containment under the control of a dedicated

(continued)

BASES

ACTIONS

PA5

or areas with limited access due to inerting

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

individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock).

Required Action B.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

C.1, C.2, and C.3

With one or more air locks inoperable for reasons other than those described in Condition A or B, Required Action C.1 requires action to be immediately initiated to evaluate containment overall leakage rates using current air lock leakage test results. An evaluation is acceptable since it is overly conservative to immediately declare the primary containment inoperable if both doors in an air lock have failed a seal test or if the overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed) primary containment remains OPERABLE, yet only 1 hour (according to LCO 3.6.1.1) would be provided to restore the air lock door to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

PA2

(Required Action C.3)

Required Action C.2 requires that one door in the affected primary containment air locks must be verified closed. This Required Action must be completed within the 1 hour Completion Time. This specified time period is consistent with the ACTIONS of LCO 3.6.1.1, which require that primary containment be restored to OPERABLE status within 1 hour.

Additionally, the air lock must be restored to OPERABLE status within 24 hours. The 24 hour Completion Time is reasonable for restoring an inoperable air lock to OPERABLE status considering that at least one door is maintained closed in each affected air lock.

(continued)

BASES

ACTIONS (continued)

D.1 and D.2

If the inoperable primary containment air lock cannot be restored to OPERABLE status within the associated Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to 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 3.6.1.2.1

TA2

X2

approved in License Amendment 97 (Ref. 3)

the Primary Containment Leakage Rate Testing Program

Maintaining primary containment air locks OPERABLE requires compliance with the leakage rate test requirements of 10 CFR 50, Appendix J (Ref. 2), as modified by approved exemptions. This SR reflects the leakage rate testing requirements with regard to air lock leakage (Type B leakage tests). The acceptance criteria were established during initial air lock and primary containment OPERABILITY testing. The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall primary containment leakage rate. The Frequency is required by 10 CFR 50, Appendix J, as modified by approved exemptions. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply.

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 has been added to this SR, requiring the results to be evaluated against the acceptance criteria of SR 3.6.1.1.1. This ensures that air lock leakage is properly accounted for in determining the overall primary containment leakage rate.

PA2

(Primary Containment Leakage Rate Testing Program)

TA2

combined Type B and C

which is applicable to

(continued)

RAI 3.6.1.2-2
TSTF-52, R3

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.2.2

The seal air flask pressure is verified to be at ≥ [90] psig every 7 days to ensure that the seal system remains viable. It must be checked because it could bleed down during or following access through the air lock, which occurs regularly. The 7 day Frequency has been shown to be acceptable through operating experience and is considered adequate in view of the other indications available to operations personnel that the seal air flask pressure is low.

DB4

edit

SR 3.6.1.2.3

2 DB4 1 DB5

The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure (Ref. 3), closure of either door will support primary containment OPERABILITY. Thus, the interlock feature supports primary containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous inner and outer door opening will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is only challenged when the primary containment air lock door is opened, this test is only required to be performed upon entering or exiting a primary containment air lock, but is not required more frequently than once per 184 days. The 184 day Frequency is based on engineering judgment and is considered adequate in view of other administrative controls [such as indications of interlock mechanism status available to operations personnel].

not normally used for entry and exit (procedures require strict adherence to single door opening)

INSERT BSR 36122

24 month

given that the interlock is not challenged during the use of the air lock

TA1

RAI 3.6.1.2-5
TSTF-17, R2

SR 3.6.1.2.4

A seal pneumatic system test to ensure that pressure does not decay at a rate equivalent to > [2] psig for a period of [48] hours from an initial pressure of [80] psig is an effective leakage rate test to verify system performance. The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a

DB4

(continued)

TA1

INSERT BSR 36122

every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of primary containment OPERABILITY if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency.

RAI 3.6.1.2-5
TSTF-17, R2

Insert Page B 3.6-13

REVISION E

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.2.4 (continued)

plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the [18] month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

DB4

REFERENCES

PA1 U

1. FSAR, Section [3.8].

J.2 DB5

2. 10 CFR 50, Appendix J

3. FSAR, Table [6.2-13].

edit

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

X1

X2

NRC letter dated November 21, 1985, Issuance of Amendment 97 to the Facility Operating License DPR-59 for James A. FitzPatrick Nuclear Power Plant.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS 3.6.1.2

Primary Containment Air Locks

JUSTIFICATION FOR DIFFERENCES (JFDs)
FROM NUREG-1434, REVISION 1, BASES

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1434, REVISION 1
ITS BASES: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

RAI 3.6.1.2-3

RETENTION OF EXISTING REQUIREMENT (CLB)

CLB1 Not used.

CLB2 The bracketed values have been corrected consistent with the Primary Containment Leakage Rate Testing Program.

RAI 3.6.1.2-2

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

PA1 Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the plant specific system/structure/component nomenclature, equipment identification, or description.

PA2 Editorial change made for enhanced clarity or to be consistent with similar statements in other places in the Bases.

PA3 Typographical or grammatical error corrected.

PA4 These words have been deleted since the primary containment may need to be entered for reasons related to Technical Specifications that are not specifically on "equipment." This could include sampling and inspections. The intent has not changed in that it must still be related to Technical Specifications.

PA5 Editorial changes have been made to be consistent with the wording in the Specification.

PA6 SR 3.6.1.2.1 has been modified with Note 2 consistent with the allowances in Note 3 of the ITS 3.6.1.2 ACTIONS. The Bases has been revised to reflect this modification.

PA7 Changes made to allow verification of the closure of air lock doors by administrative means when the primary containment is inerted to reflect the BWR-4 design. The change is consistent with NUREG-1433, Revison 1.

RAI 3.6.1.2-3

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 ITS 3.6.1.2 has been revised to reflect plant specific differences based on the JAFNPP design of the Primary Containment air locks. JAFNPP primary containment contains two air locks, the personnel access hatch, used for normal entry and exit, and the emergency escape hatch that may

RAI 3.6.1.2-3

PLANT-SPECIFIC DIFFERENCE IN THE DESIGN (DB)

DB1 (continued)

be used for entry and exit. The changes are consistent with the format and content of NUREG-1434, ISTS 3.6.1.2, which addresses designs with two air locks, but with one exception. ITS 3.6.1.2 Condition A Note 2, that entry and exit is permissible for 7 days under administrative control, will not include the requirement that both air locks be inoperable. Access through the narrow emergency escape hatch is severely restricted with regards to personnel and equipment. Therefore, the 7 days will apply to the use of the personnel access hatch as well as the emergency escape hatch.

DB2 ITS 3.6.1.2 has been revised to reflect a specific JAFNPP design difference. JAFNPP does not provide indication in the control room to alert the operator when an air lock interlock mechanism is defeated. Therefore this information in the Background has been deleted.

DB3 The personnel access and emergency escape airlock are shaped as right circular cylinders but have different dimensions (10'-4" and 6'-2" OD, respectively). These details are not included in the Bases since this information does not provide any pertinent information concerning the Operability of the airlocks.

RAI 3.6.1.2-3

Editorial

DB4 ISTS SR 3.6.1.2.2 Bases and SR 3.6.1.2.4 Bases have been deleted since the FitzPatrick plant design does not include an air lock seal air system. SR 3.6.1.2.3 Bases has been renumberd to reflect the change.

DB5 ITS 3.6.1.2 has been revised to reflect the specific JAFNPP reference requirements of UFSAR, Section 5.2, Primary Containment System.

DIFFERENCE BASED ON AN APPROVED TRAVELER (TA)

RAI 3.6.1.2-5

TA1 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler number 17, Revision 2 have been incorporated into the revised Improved Technical Specifications.

TA2 The changes presented in Technical Specification Task Force (TSTF) Technical Specification Change Traveler number 52, Revision 3 have been incorporated into the revised Improved Technical Specifications.

RAI 3.6.1.2-2

JUSTIFICATION FOR DIFFERENCES FROM NUREG-1434, REVISION 1
ITS BASES: 3.6.1.2 - PRIMARY CONTAINMENT AIR LOCKS

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

None

DIFFERENCE FOR ANY REASON OTHER THAN THE ABOVE (X)

X1 NUREG-1434, 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.

X2 The bracketed method to establish the air lock leakage limits in SR 3.6.1.2.1 has been revised to be consistent with plant specific method. A Reference has been added as a result of this modification.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.2

Primary Containment Air Locks

RETYPED PROPOSED IMPROVED TECHNICAL SPECIFICATIONS (ITS) AND BASES

3.6 CONTAINMENT SYSTEMS

3.6.1.2 Primary Containment Air Locks

LCO 3.6.1.2 Two primary containment air locks shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

RAI 3.6.1.2-3

ACTIONS

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

1. Entry and exit is permissible to perform repairs of the affected air lock components.
2. Separate Condition entry is allowed for each air lock.
3. Enter applicable Conditions and Required Actions of LCO 3.6.1.1, "Primary Containment," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more primary containment air locks with one primary containment air lock door inoperable.	----------NOTES---------- 1. Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry and exit is permissible for 7 days under administrative controls. ---------- A.1 Verify the OPERABLE door is closed in the affected air lock. AND	1 hour (continued)

ACTIONS

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

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. (continued)	B.2	Lock an OPERABLE door closed in the affected air lock.	24 hours
	AND		
	B.3	--------NOTE-------- Air lock doors in high radiation areas or areas with limited access due to inerting may be verified locked closed by administrative means. ---------- Verify an OPERABLE door is locked closed in the affected air lock.	Once per 31 days
C. One or more primary containment air locks inoperable for reasons other than Condition A or B.	C.1	Initiate action to evaluate primary containment overall leakage rate per LCO 3.6.1.1, using current air lock test results.	Immediately
	AND		
	C.2	Verify a door is closed in the affected air lock.	1 hour
	AND		
	C.3	Restore air lock to OPERABLE status.	24 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.2.1	----------NOTE---------- 1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against criteria applicable to SR 3.6.1.1.1. ---------- Perform required primary containment air lock leakage rate testing in accordance with the Primary Containment Leakage Rate Testing Program.	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.2.2	Verify only one door in the primary containment air lock can be opened at a time.	24 months

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1.2 Primary Containment Air Locks

BASES

BACKGROUND

Two double door primary containment air locks (personnel access hatch and emergency escape hatch) have been built into the primary containment to provide personnel access to the drywell and to provide primary containment isolation during the process of personnel entering and exiting the drywell. The air locks are designed to withstand the same loads, temperatures, and peak design internal and external pressures as the primary containment (Ref. 1). As part of the primary containment, the air locks limit the release of radioactive material to the environment during normal plant operation and through a range of transients and accidents up to and including postulated Design Basis Accidents (DBAs).

RAI 3.6.1.2-3

Each air lock door has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a DBA in primary containment. Each of the personnel access hatch doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in primary containment internal pressure results in increased sealing force on each door).

Each air lock is nominally a right circular cylinder, with doors at each end that are interlocked to prevent simultaneous opening. The air locks are provided with limit switches on both doors in each airlock that provide control room indication of door position. During periods when primary containment is not required to be OPERABLE, the air lock interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent primary containment entry is necessary. Under some conditions as allowed by this LCO, the primary containment may be accessed through the air lock, when the interlock mechanism has failed, by manually performing the interlock function.

The primary containment air locks form part of the primary containment pressure boundary. As such, air lock integrity and leak tightness are essential for maintaining the primary containment leakage rate to within limits in the event of a

(continued)

BASES

BACKGROUND (continued)

DBA. Not maintaining air lock integrity or leak tightness may result in a leakage rate in excess of that assumed in the plant safety analysis.

APPLICABLE SAFETY ANALYSES

The postulated DBA that results in the maximum release of radioactive material within primary containment is a LOCA. In the analysis of this accident, it is assumed that primary containment is OPERABLE, such that release of fission products to the environment is controlled by the rate of primary containment leakage. The maximum allowable leakage rate (L_a) for the primary containment is 1.5% by weight of the containment air per 24 hours at the peak containment pressure (P_a) of 45 psig (Primary Containment Leakage Rate Testing Program). This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air locks.

Primary containment air lock OPERABILITY is also required to minimize the amount of fission product gases that may escape primary containment through the air lock and contaminate and pressurize the secondary containment.

The primary containment air locks satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii) (Ref. 2).

editorial

LCO

As part of the primary containment pressure boundary, the air lock's safety function is related to control of containment leakage following a DBA. Thus, the air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

The primary containment air locks are required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be OPERABLE. The interlock allows only one air lock door to be opened at a time. This provision ensures that a gross breach of primary containment does not exist when primary containment is required to be OPERABLE. Closure of a single door in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed

(continued)

BASES

LCO (continued)

when the air lock is not being used for normal entry or exit from primary containment.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could cause a release of radioactive material to primary containment. In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the primary containment air locks are not required to be OPERABLE in MODES 4 and 5 to prevent leakage of radioactive material from primary containment.

ACTIONS

The ACTIONS are modified by Note 1, which allows entry and exit to perform repairs of the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door, it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the primary containment boundary is not intact (during access through the OPERABLE outer door). The allowance to open the OPERABLE door, even if it means the primary containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the primary containment during the short time in which the OPERABLE door is expected to be open. The OPERABLE door must be immediately closed after each entry and exit.

RAI 3.6.1.2-3

Note 2 has been included to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are modified by a third Note, which ensures appropriate remedial measures are taken when necessary, if

(continued)

BASES

ACTIONS (continued)

air lock leakage results in exceeding overall containment leakage rate acceptance criteria. Pursuant to LCO 3.0.6, actions are not required, even if primary containment leakage is exceeding L_a. Therefore, the Note is added to require ACTIONS for LCO 3.6.1.1, "Primary Containment," to be taken in this event.

A.1, A.2, and A.3

With one primary containment air lock door inoperable in one or more primary containment air locks, the OPERABLE door in each affected air lock must be verified closed (Required Action A.1). This ensures that a leak tight primary containment barrier is maintained by the use of an OPERABLE air lock door. This action must be completed within 1 hour. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1.1, which requires that primary containment be restored to OPERABLE status within 1 hour.

editorial

In addition, the affected air lock penetration must be isolated by locking closed the OPERABLE air lock door within the 24 hour Completion Time. The 24 hour Completion Time is considered reasonable for locking the OPERABLE air lock door, considering the OPERABLE door of the affected air lock is being maintained closed.

Required Action A.3 ensures that the affected air lock penetration has been isolated by the use of a locked closed OPERABLE air lock door. This ensures that an acceptable primary containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate given the low likelihood of a locked door being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas or areas with limited access due to inerting and allows these doors to be verified locked closed by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

(continued)

BASES

ACTIONS

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

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the air lock are inoperable. With both doors in the air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the affected air lock for entry and exit for 7 days under administrative controls.

Primary containment entry may be required to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities inside primary containment that are required by TS or activities that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-related activities) if the primary containment was entered, using the inoperable air lock, to perform an allowed activity listed above. The required administrative controls consist of stationing a dedicated individual to assure closure of the OPERABLE door except during the entry and exit, and to assure the OPERABLE door is relocked after completion of the containment entry and exit. This allowance is acceptable due to the low probability of an event that could pressurize the primary containment during the short time that the OPERABLE door is expected to be open.

editorial

B.1, B.2, and B.3

With an air lock interlock mechanism inoperable in one or both primary containment air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

(continued)

BASES

ACTIONS

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

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the same air lock are inoperable. With both doors in the same air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. Note 2 allows entry into and exit from the primary containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock).

Required Action B.3 is modified by a Note that applies to air lock doors located in high radiation areas or areas with limited access due to inerting and allows these doors to be verified locked closed by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

C.1, C.2, and C.3

With one or more air locks inoperable for reasons other than those described in Condition A or B, Required Action C.1 requires action to be immediately initiated to evaluate containment overall leakage rates using current air lock leakage test results. An evaluation is acceptable since it is overly conservative to immediately declare the primary containment inoperable if both doors in an air lock have failed a seal test or if the overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed), primary containment remains OPERABLE, yet only 1 hour (according to LCO 3.6.1.1) would be provided to restore the air lock door to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

Required Action C.2 requires that one door in the affected primary containment air locks must be verified closed. This Required Action must be completed within the 1 hour Completion Time. This specified time period is consistent with the ACTIONS of LCO 3.6.1.1, which require that primary containment be restored to OPERABLE status within 1 hour.

(continued)

BASES

ACTIONS

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

Additionally, the air lock must be restored to OPERABLE status within 24 hours (Required Action C.3). The 24 hour Completion Time is reasonable for restoring an inoperable air lock to OPERABLE status considering that at least one door is maintained closed in each affected air lock.

D.1 and D.2

If the inoperable primary containment air lock(s) cannot be restored to OPERABLE status within the associated Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to 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 3.6.1.2.1

Maintaining primary containment air locks OPERABLE requires compliance with the leakage rate test requirements of the Primary Containment Leakage Rate Testing Program. This SR reflects the leakage rate testing requirements with respect to air lock leakage (Type B leakage tests). The acceptance criteria were approved in License Amendment 97 (Ref. 3). The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall primary containment leakage rate. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 has been added to this SR, requiring the results to be evaluated against the acceptance criteria which is applicable to SR 3.6.1.1.1 (Primary Containment Leakage Rate Testing Program). This ensures that air lock leakage is properly accounted for in determining the combined Type B and C primary containment leakage.

RAI 3.6.1.2-2 TSTF-52, R3

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.2.2

The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure (Ref. 1), closure of either door will support primary containment OPERABILITY. Thus, the interlock feature supports primary containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous inner and outer door opening will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is not normally challenged when primary containment air lock is used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of primary containment OPERABILITY if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency. The 24 month Frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during use of the air lock.

REFERENCES

1. UFSAR, Section 5.2.
2. 10 CFR 50.36(c)(2)(ii).
3. NRC Letter dated November 21, 1985, Issuance of Amendment 97 to the Facility Operating License DPR-59 for James A. FitzPatrick Nuclear Power Plant.

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.3

Primary Containment Isolation Valves (PCIVs)

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: 3.6.1.3

Primary Containment Isolation Valves (PCIVs)

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS (CTS)

See ITS! 3.3.6.1

Specification 3.6.1.3

A1

SR 3.6.1.3.7

A9

TABLE 4.2-1 (Cont'd)

PRIMARY CONTAINMENT ISOLATION SYSTEM INSTRUMENTATION TEST AND CALIBRATION REQUIREMENTS

Actual or Simulated automatic actuation

	Logic System Functional Test (Notes 7 & 9)	Frequency
1)	Main Steam Line Isolation Valves Main Steam Line Drain Valves Reactor Water Sample Valves	R
2)	RHR - Isolation Valve Control Shutdown Cooling Valves	R
3)	Reactor Water Cleanup Isolation	R
4)	Drywell Isolation Valves TIP Withdrawal Atmospheric Control Valves	R
5)	Standby Gas Treatment System Reactor Building Isolation	R
6)	HPCI Subsystem Auto Isolation	R
7)	RCIC Subsystem Auto Isolation	R

See ITS! 3.3.5.1

See ITS! 3.3.6.1

See ITS! 3.3.6.2

See ITS! 3.3.6.1

NOTE: See notes following Table 4.2-5.

Page 1 of 9

Specification 3.6.1.3

(A1)

NOTES FOR TABLES 4.2-1 THROUGH 4.2-5

See ITS: 3.4.5

1. Initially once every month until acceptance failure rate data are available; thereafter, a request may be made to the NRC to change the test frequency. The compilation of instrument failure rate data may include data obtained from other boiling water reactors for which the same design instruments operate in a environment similar to that of JAFNPP.

See ITS: 3.3.2.1

2. Functional tests are not required when these instruments are not required to be operable or are tripped. Functional tests shall be performed within seven (7) days prior to each startup.

3. Calibrations are not required when these instruments are not required to be operable or are tripped. Calibration tests shall be performed within seven (7) days prior to each startup or prior to a pre-planned shutdown.

See ITS: 3.3.2.1, 3.3.5.1, 3.3.6.1, 3.3.5.2

4. Instrument checks are not required when these instruments are not required to be operable or are tripped.

See ITS 3.3.2.1, 3.3.5.1, 3.3.6.1, 3.3.5.2, 3.3.3.2

5. This instrumentation is exempt from the functional test definition. The functional test will consist of injecting a simulated electrical signal into the measurement channel.

6. These instrument channels will be calibrated using simulated electrical signals once every three months.

[SR 3.6.1.3]

7. Simulated automatic actuation shall be performed once per 24 months.

"actual" or (L1)

See ITS: 3.3.2.1

See ITS 3.3.6.1

8. Reactor low water level, and high drywell pressure are not included on Table 4.2-1 since they are listed on Table 4.1-2.

See ITS 3.3.5.1, 3.3.6.1

9. The logic system functional tests shall include a calibration of time delay relays and timers necessary for proper functioning of the trip systems.

10. ~~(Deleted)~~

See ITS: 3.3.6.1, 3.3.7.2

11. Perform a calibration once per 24 months using a radiation source. Perform an instrument channel alignment once every 3 months using a current source.

12. ~~(Deleted)~~

13. ~~(Deleted)~~

14. ~~(Deleted)~~

See ITS 3.3.5.1, 3.3.6.1

15. Sensor calibration once per 24 months. Master/slave trip unit calibration once per 6 months.

16. The quarterly calibration of the temperature sensor consists of comparing the active temperature signal with a redundant temperature signal.

See ITS: 3.3.6.1

Specification 3.6.1.3 A1

1.0 (cont'd)

See ITS: 1.0

1. Refuel Mode - The reactor is in the refuel mode when the Mode Switch is in the Refuel Mode position. When the Mode Switch is in the Refuel position, the refueling interlocks are in service.

2. Run Mode - In this mode the reactor system pressure is at or above 850 psig and the Reactor Protection System is energized with APRM protection (excluding the 15 percent high flux trip) and the RBM interlocks in service.

3. Shutdown Mode - The reactor is in the shutdown mode when the Reactor Mode Switch is in the Shutdown Mode position.

   a. Hot shutdown means conditions as above with reactor coolant temperature >212°F.

   b. Cold shutdown means conditions as above with reactor coolant temperature ≤212°F. and the reactor vessel vented.

4. Startup/Hot Standby - In this mode the low pressure main steam line isolation valve closure trip is bypassed, the Reactor Protection System is energized with APRM (15 percent) and IRM neutron monitoring system trips and control rod withdrawal interlocks in service.

J. Operable - A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

K. Operating - Operating means that a system or component is performing its intended functions in its required manner.

L. Operating Cycle - Interval between the end of one refueling outage and the end of the subsequent refueling outage.

3.6.1.3

M. Primary Containment (Integrity) - Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

PCIVs A11

See ITS: 3.6.1.1

1. All manual containment isolation valves on lines connected to the Reactor Coolant System or containment which are not required to be open during plant accident conditions are closed. These valves may be

M4 SR 3.6.1.3.2 SR 3.6.1.3.3

Note 1 to ACTIONS
Note 2 to SR 3.6.1.3.2
Note 2 to SR 3.6.1.3.3

add Surveillance Frequency

M4

1.0 (cont'd)

NOTE 1 to ACTIONS
Note 2 to SR 3.6.1.3.2
Note 2 to SR 3.6.1.3.3
— opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

[LCO 3.6.1.3] 3. All automatic containment isolation valves are operable or de-activated in the isolated position.

4. All blind flanges and manways are closed.

See ITS: 3.6.1.2

See ITS: Chapter 1.0

LA5

M4

add Surveillance Frequency

See ITS 3.6.1.1

[SR 3.6.1.3.2] [SR 3.6.1.3.3] M4

N. Rated Power - Rated power refers to operation at a reactor power of 2,536 MWt. This is also termed 100 percent power and is the maximum power level authorized by the operating license. Rated steam flow, rated coolant flow, rated nuclear system pressure, refer to the values of these parameters when the reactor is at rated power (Reference 1).

O. Reactor Power Operation - Reactor power operation is any operation with the Mode Switch in the Startup/Hot Standby or Run position with the reactor critical and above 1 percent rated thermal power.

P. Reactor Vessel Pressure - Unless otherwise indicated, reactor vessel pressures listed in the Technical Specifications are those measured by the reactor vessel steam space sensor.

Q. Refueling Outage - Refueling outage is the period of time between the shutdown of the unit prior to refueling and the startup of the Plant subsequent to that refueling.

R. Safety Limits - The safety limits are limits within which the reasonable maintenance of the fuel cladding integrity and the reactor coolant system integrity are assured. Violation of such a limit is cause for unit shutdown and review by the Nuclear Regulatory Commission before resumption of unit operation. Operation beyond such a limit may not in itself result in serious consequences but it indicates an operational deficiency subject to regulatory review.

S. Secondary Containment Integrity - Secondary containment integrity means that the reactor building is intact and the following conditions are met:

1. At least one door in each access opening is closed. See ITS: 3.6.4.1
2. The Standby Gas Treatment System is operable. See ITS: 3.6.4.3
3. All automatic ventilation system isolation valves are operable or secured in the isolated position. See ITS: 3.6.4.2

T. Surveillance Frequency Notations / Intervals

The surveillance frequency notations / intervals used in these specifications are defined as follows:

Notations	Intervals	Frequency
D	Daily	At least once per 24 hours
W	Weekly	At least once per 7 days
M	Monthly	At least once per 31 days
Q	Quarterly or every 3 months	At least once per 92 days
SA	Semiannually or every 6 months	At least once per 184 days
A	Annually or Yearly	At least once per 368 days
18M	18 Months	At least once per 18 months (550 days)
R	Operating Cycle	At least once per 24 months (731 days)
S/U		Prior to each reactor startup
NA		Not applicable

See ITS Chapter 1.0

See ITS: Chapter 1.0 Section 5.5

Specification 3.6.1.3

JAFNPP

3.7 (cont'd)

except reactor building-to-suppression chamber vacuum breakers

4.7 (cont'd)

sec JIS: 3.6.4.1

c. Secondary containment capability to maintain a 1/4 in. of water vacuum under calm wind conditions with a filter train flow rate of not more than 6,000 cfm, shall be demonstrated at each refueling outage prior to refueling.

add second Applicability

Modes 1, 2 and 3

[3.6.1.3]

Primary Containment Isolation Valves

[Applicability]

1. Whenever primary containment integrity is required per 3.7.A.2 containment isolation valves and all instrument line excess flow check valves shall be operable, ~~except as specified in 3.7.D.2.~~ The containment vent and purge valves shall be limited to opening angles less than or equal to that specified below:

[LCO 3.6.1.3]

Valve Number	Maximum Opening Angle
27AOV-111	40°
27AOV-112	40°
27AOV-113	40°
27AOV-114	50°
27AOV-115	50°
27AOV-116	50°
27AOV-117	50°
27AOV-118	50°

add ACTIONS Note 2, 3 and 4

to actuate to the isolation position on a simulated instrument line break

[3.6.1.3]

Primary Containment Isolation Valves

1. The primary containment isolation valves surveillance shall be performed as follows:

Item	Frequency	
a. The operable isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and for closure time.	24 months	In accordance with the Inservice Testing Program
b. Instrument line excess flow check valves shall be tested for proper operation.	actual or	In accordance with the Inservice Testing Program
All normally open power-operated isolation valves (except for the main steam isolation valves) shall be fully closed and reopened.		In accordance with the Inservice Testing Program

[3.6.1.3.7] [SR 3.6.1.3.5] [SR 3.6.1.3.8] [3.6.1.3.5]

RAI 3.6.1.3-3

Amendment No. ~~154, 173, 195, 232, 233~~ 242

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specification 3.6.1.3 A1

3.7 (cont'd)

add Proposed ACTION B L3

add Proposed ACTION C L4

add Required Action A.2 and Required Action C.2 Notes L11

add Note to Condition A A3

[ACTION A] 2. With one or more of the containment isolation valves inoperable, maintain at least one isolation valve operable in each affected penetration that is open and: A4

a. Restore the inoperable valve(s) to operable status within 4 hours; or

Required Action A.1

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the closed position. Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control; or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or a blind flange. or check valve with flow through the valve secured or closed and deactivated automatic valve. L6

8 hours for main steam lines L5

3. If Specifications 3.7.D.1 or 3.7.D.2 cannot be met the reactor shall be in the cold condition within 24 hrs. M5 MODE 3 in 12 hours 36

add ACTION G M1 L7

4.7 (cont'd)

Item	Surveillance	Frequency
[SR 3.6.1.3.6] d.	Fast close each main steam isolation valve, and verify closure time. add limits M3	In accordance with the Inservice Testing Program

CTS Amend 260

TSTF-269, R2

2. Whenever a containment isolation valve is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily A5 L8

Required Action A.2 and C.2

add proposed SRs: SR 3.6.1.3.2, SR 3.6.1.3.3, SR 3.6.1.3.4, SR 3.6.1.3.9 M4

TSTF-30, R3 (AT 3.6.1.3-5)

Specification 3.6.1.3 (A1)

3.7 (cont'd)

(2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 10°F above the normal power operation limit specified in (1) above. In connection with such testing, the pool temperature must be reduced to below the normal power operation limit specified in (1) above within 24 hours.

(3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal power operation limit specified in (1) above.

(4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120°F.

see ITS 3.6.2.1

4.7 (cont'd)

(L13) In accordance with the primary Containment Leakage Rate Testing Program

RAI 3.6.1.3-7

(AB) Each PCIV, except reactor building-to-suppression Chamber vacuum breakers, shall be OPERABLE

see ITS: 3.6.1.1

add second Applicability (M1)

(LCO 3.6.1.3) 2. Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F, and fuel is in the reactor vessel, except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 MWt.

see ITS: 3.10.8

Applicability MODES 1, 2 and 3 (M1)

2. a. Perform required visual examination and leakage rate testing of the Primary Containment in accordance with the Primary Containment Leakage Rate Testing Program.

(A6) (within limits)

b. Demonstrate leakage rate through each MSIV is ≤ 11.5 scfh when tested at ≥ 25 psig. The testing frequency is in accordance with the Primary Containment Leakage Rate Testing Program.

[SR 3.6.1.3.10]

(L12) c. Once per 24 months, demonstrate the leakage rate of 10AOV-86A,B for the Low Pressure Coolant Injection system and 14AOV-13A,B for the Core Spray system to be less than 11 scfm per valve when pneumatically tested at ≥ 45 psig at ambient temperature, or less than 10 gpm per valve if hydrostatically tested at ≥ 1,035 psig at ambient temperature.

[SR 3.6.1.3.11]

RAI 3.6.1.3-7

all proposed ACTION E for any LPCI or CS AOV PCIV leakage not within limits (L10)

add proposed ACTION D for MSIV leakage not within limits (L9)

Specification 3.6.1.3

A1

3.7 (Cont'd)

4.7 (Cont'd)

(1) The drywell to torus differential pressure shall be established within 24 hours of exceeding 15% rated thermal power during startup. The differential pressure may be reduced to less than the limit up to 24 hours prior to reducing thermal power to less than 15% of rated before a plant shutdown.

(2) The differential pressure may be decreased to less than 1.7 psid for a maximum of four (4) hours during required operability testing of the HPCI, RCIC, and Suppression Chamber - Drywell Vacuum Breaker System.

(3) If 3.7.A.7.a above cannot be met, restore the differential pressure to within limits within eight hours or reduce thermal power to less than 15% of rated within the next 12 hours.

see ITS: 3.6.2.4

8. If the specifications of 3.7.A.1 through 3.7.A.5 cannot be met the reactor shall be in the cold condition within 24 hours.

8. Not applicable.

ACTION F

MODE 3 12 hours

M5

36

L7

Specification 3.6.1.3

A1

3.7 (cont'd)	4.7 (cont'd)
b. If in Refuel or Cold Shutdown mode, reactor operation or irradiated fuel handling is permissible only during the succeeding 31 days unless such circuit is sooner made operable, provided that during such 31 days all active components of the other Standby Gas Treatment Circuit shall be operable.	See ITS 3.6.4.3
3. If Specifications 3.7.B.1 and 3.7.B.2 are not met, the reactor shall be placed in the cold condition and irradiated fuel handling operations and operations that could reduce the shutdown margin shall be prohibited.	3. Intentionally Blank
4. Whenever primary containment integrity is required as specified in Section 3.7.A.2. Valve 27MOV-121 shall be used for inerting or deinerting.	[SR 3.6.1.3.1] 4. Valve 27MOV-120 shall be verified closed when containment integrity is established, and then once per month.

M7

20 and 24 inch vent and purge valves

[Note to SR 3.6.1.3.1]

CTS Amend 269

JAFNPP

IMPROVED STANDARD TECHNICAL SPECIFICATIONS (ISTS) CONVERSION

ITS: 3.6.1.3

Primary Containment Isolation Valves (PCIVs)

DISCUSSION OF CHANGES (DOCs) TO THE CTS

DISCUSSION OF CHANGES
ITS: 3.6.1.3 - PRIMARY CONTAINMENT ISOLATION VALVES (PCIVs)

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 that 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 Three Notes have been added to CTS 3.7.D. Proposed ITS 3.6.1.3 ACTIONS Notes 2, 3, and 4 have been included consistent with NUREG-1433, Revision 1. These Notes facilitate the use and understanding of the proposed ACTIONS and the relationship between INOPERABLE PCIVs and system OPERABILITY.

ITS 3.6.1.3 Note 2, which allows separate Condition entry for each penetration flow path, provides explicit instructions for proper application of the ACTIONS for Technical Specification compliance. In conjunction with the proposed Specification 1.3, "Completion Times," this Note provides direction consistent with the intent of the existing ACTIONS for inoperable isolation valves.

ITS 3.6.1.3 Note 3, to enter applicable Conditions and Required Actions for systems made inoperable by PCIVs, establishes the need to verify individual system OPERABILITY based on the affect of an INOPERABLE PCIV. This requirement is consistent with individual CTS Surveillance Requirements to verify valve OPERABILITY and/or correct position.

ITS 3.6.1.3 Note 4, to enter the applicable Conditions and Required Actions of ITS 3.6.1.1, Primary Containment, when PCIV leakage exceeds the overall Primary Containment leakage rate acceptance criteria, establishes the need to consider the Primary Containment OPERABILITY if the PCIV leakage acceptance criteria is not being met. This change is consistent with the relationship of containment integrity and PCIV OPERABILITY established in the CTS 1.0.M definition of Containment Integrity. In addition Note 4, clarifies that "systems" include the primary containment. Since proposed LCO 3.0.6 waives the requirement to cascade, the intent of the CTS would not necessarily apply. The clarification is consistent with the intent and interpretation of the existing Technical Specifications, and is therefore considered administrative.

DISCUSSION OF CHANGES
ITS: 3.6.1.3 - PRIMARY CONTAINMENT ISOLATION VALVES (PCIVs)

ADMINISTRATIVE CHANGES

A3 CTS 3.7.D.2 requirement, to maintain at least one isolation valve operable in each affected penetration that is open, is being deleted. Proposed ITS 3.6.1.3 Condition A Note has been provided to restrict the applicability to penetrations with two PCIVs, where a second valve is available. This Note is consistent with the Notes provided in the new proposed ITS 3.6.1.3 Condition B (L3) for two valves inoperable in a penetration with two PCIVs, and ITS 3.6.1.3 Condition C (L4) for penetrations with only one PCIV. The addition of this Note identifying the applicable configuration, in conjunction with the separate and specific requirements provided in the proposed Conditions, is consistent with the format of NUREG-1433, Revision 1. Since there is no change in any technical requirements, this change is considered administrative.

A4 The requirement in CTS 3.7.D.2.a, to "restore the inoperable valve(s) to operable status within 4 hours," has been deleted since this is always an option. Since the time requirements on the alternative actions (CTS 3.7.D.2.b and 3.7.D.2.c are identical this change is considered administrative.

A5 The requirement to record the results in CTS 4.7.D.2 (ITS 3.6.1.3 Required Actions A.2 and C.2) is proposed to be deleted. This requirement duplicates the requirements of 10 CFR 50 Appendix B, Section XVII (Quality Assurance Records) to maintain records of activities affecting quality, including the results of tests/verifications. Compliance with 10 CFR 50 Appendix B is required by the JAFNPP Operating License. The details of the regulations within the Technical Specifications are repetitious and unnecessary. Therefore, retaining the requirement to perform the associated verifications and eliminating the details from Technical Specifications that are found in 10 CFR 50 Appendix B is considered a presentation preference, which is administrative.

A6 CTS 4.7.A.2.b details, specifying the MSIV leakage limit and test pressure, have been deleted. ITS SR 3.6.1.3.10 requires the MSIV leakage be within the limits of the Primary Containment Leakage Rate Testing Program. Since identical values are identified in CTS 6.20 and in proposed ITS 5.5.6, Primary Containment Leakage Rate Testing Program, this change is a presentation preference and is considered administrative.

A7 Not Used.

A8 CTS 3.7.A.2 (3.7.D.1) requirement for primary containment isolation valves (PCIVs) to be Operable, has been revised. Proposed ITS LCO 3.6.1.3 provides an exception for reactor building-to-suppression

ADMINISTRATIVE CHANGES

A8 (continued)

chamber vacuum breakers. Although, reactor building-to-suppression chamber vacuum breakers isolate primary containment penetrations, they are excluded from this specification. This change is acceptable since reactor building-to-suppression chamber vacuum breakers OPERABILITY requirements are currently specified in CTS 3.7.A.4 and retained in proposed ITS 3.6.1.6. Along with this change the explicit requirement in CTS 3.7.D.1 that all instrument line excess flow check valves must be Operable has been deleted from the current LCO requirements. Since the valves are considered PCIVs, there is no need to explicitly identify them. Proposed ITS SR 3.6.1.3.8 will ensure the current requirements in CTS 4.7.D.1.b concerning instrument excess flow check valves are met. This change constitutes a presentation preference, consistent with NUREG-1433, Revision 1, and therefore, is considered to be administrative.

A9 CTS 4.7.D.1.a requirement, to test PCIVs that are power operated and automatically initiated for simulated automatic initiation per the IST Program, is being revised to present the requirements as intended. Since the IST Program does not specify the method used to initiate a test for closure timing (ITS SR 3.6.1.3.5), proposed ITS SR 3.6.1.3.7 verification that each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal is provided. The Frequency of 24 months has been included consistent with the ITS Program, and the requirements of CTS Table 4.2-1 (Note 7), Primary Containment Isolation System Instrumentation Test Calibration Requirements, which specifies that actual (L1) or simulated automatic actuation shall be performed once per 24 months. This change represents a presentation preference consistent with format and content provided in NUREG-1433, Revision 1, and therefore, is considered to be administrative.

A10 CTS 4.7.D.1.c, specifying that all normally open power operated isolation valves (except for the main steam isolation valves) shall be fully closed and reopened, at a Frequency in accordance with the IST Program, is considered to be encompassed by CTS 4.7.D.1.a, proposed ITS SR 3.6.1.3.5 (Verify the isolation time of each automatic PCIV, except for MSIVs, is within limits). Since SR 3.6.1.3.5 will require closing each automatic PCIV in order to determine the isolation time, even normally open valves will be verified, on a Frequency consistent with the IST Program. Since the valves are normally open, they will be closed and then reopened while performing the SR and therefore the stroking requirement is being met. Since no technical changes are being made this change is considered to be administrative.

DISCUSSION OF CHANGES
ITS: 3.6.1.3 - PRIMARY CONTAINMENT ISOLATION VALVES (PCIVs)

ADMINISTRATIVE CHANGES

A11 CTS 3.7.A.2 reference to "Primary Containment Integrity" has been deleted since the CTS definition of Primary Containment Integrity in CTS 1.0.M is incorporated into ITS 3.6.1.1, 3.6.1.2 and 3.6.1.3 and is no longer maintained as a separate definition in the ITS. Proposed ITS 3.6.1.3 requires each primary containment isolation valve to be OPERABLE. The definition of OPERABLE and the subsequent ITS 3.6.1.3 LCO, ACTIONs, and Surveillances are sufficient to encompass the requirements of the CTS definition. This change removes any confusion which may exist between the definition and the specific requirements of the LCO and is a presentation preference consistent with NUREG-1433, Revision 1. Since all aspects of the Primary Containment Integrity definition requirements, along with the remainder of the LCOs in the Containment Systems Primary Containment section (i.e., primary containment air locks, suppression pool, etc.) are maintained in subsequent Specifications of ITS this change is considered to be administrative only.

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 CTS 3.7.D.1 requires the primary containment isolation valves to be Operable whenever the primary containment integrity is required by CTS 3.7.A.2. The Applicability in CTS 3.7.A.2 is at all times when the reactor is critical or when the reactor water temperature is above 212°F and whenever fuel is in the reactor vessel. In addition, there is an exception in CTS 3.7.A.2, to not require primary containment integrity to be met during low power physics tests at atmospheric pressure and power levels not to exceed 5 MWt, however any change to this requirement is discussed in the Discussion of Changes for ITS 3.10.8. The scope of the current Applicability covers MODE 1, 3 and portions of MODE 2 operations. The Applicability in ITS 3.6.1.3 is MODES 1, 2 and 3. This change is considered more restrictive since the containment will be required to be Operable at all times in MODE 2 even prior to any plant startup when reactor coolant temperature may be below 212°F. In addition, a new Applicability is added to the current requirements. ITS 3.6.1.3 Applicability, includes the condition for when associated instrumentation is required to be OPERABLE per LCO 3.3.6.1. Since, in MODES 4 and 5, the probability and consequences of events which require primary containment isolation are reduced due to the pressure and temperature limitations of these MODES, most PCIVs are not required to be OPERABLE. Only those PCIVs which isolate to prevent reactor vessel draindown are required in MODES 4 and 5. Therefore, this change adds a MODES 4 and 5 requirement for RHR Shutdown Cooling System isolation valves. In addition, ITS 3.6.1.3 ACTION G has been added for when Required Action and associated Completion Time of Condition A or B

TECHNICAL CHANGES - MORE RESTRICTIVE

M1 (continued)

cannot be met for PCIVs required to be OPERABLE during MODES 4 and 5. This change places the plant in a condition in which the LCO does not apply. In this case, suspension of operations with a potential for draining the reactor vessel (OPDRVs) is required to minimize the probability of a vessel draindown and subsequent potential fission product release. Suspending an OPDRV may result in closing the RHR SDC isolation valves. Therefore, an alternative Required Action is provided to immediately initiate action to restore the valve(s) to OPERABLE status. This allows RHR to remain in service while ACTIONS are being taken to restore the valve. These added requirements are necessary to ensure that PCIVs are OPERABLE during events when the primary containment penetrations may need to be isolated in MODES 4 and 5. These changes are consistent with NUREG-1433, Revision 1.

RAI 3.6.1.3-3

M2 CTS 4.7.D.1.b Surveillance Requirement, to test for proper operation of the instrument line EFCVs, is being supplemented. ITS SR 3.6.1.3.8 specifies acceptance criteria that the EFCV actuate to the isolate position on a simulated instrument line break. The addition of acceptance criteria to a Technical Specification Surveillance Requirement, imposes additional operational requirements, and constitutes a more restrictive change. This change is not considered to result in any reduction to safety.

M3 CTS 4.7.D.1.d Surveillance Requirement, to fast close each MSIV, one at a time, and verify closure time, is being supplemented. Proposed ITS SR 3.6.1.3.6 specifies MSIV isolation time is $\geq$ 3 seconds and $\leq$ 5 seconds. This change is acceptable since the isolation time test ensures that the MSIV will isolate in a time period that does not exceed the times assumed in the DBA and transient analysis. The addition of acceptance criteria to a Technical Specification Surveillance Requirement, imposes additional operational requirements, and constitutes a more restrictive change. This change is not considered to result in any reduction to safety.

M4 The CTS 4.7.D Surveillance Requirements and requirements in CTS 1.0.M.1 and 1.0.M.4 are being supplemented. ITS 3.6.1.3 is adding the following four Surveillance Requirements:

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- SR 3.6.1.3.2, verify (each 31 days) each PCIV manual isolation valve, or blind flange that is located outside of primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed.

TECHNICAL CHANGES - MORE RESTRICTIVE

M4 (continued)

- SR 3.6.1.3.3, verify (prior to entering MODE 2 or 3 from MODE 4 if primary containment was de-inerted while in MODE 4, if not performed within the previous 92 days) each PCIV manual isolation valve, or blind flange that is located inside of primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed.

- SR 3.6.1.3.4, verify (each 31 days) continuity of the traversing incore probe (TIP) shear isolation valve explosive charge.

- SR 3.6.1.3.9, remove and test (each 24 months on a STAGGERED TEST BASIS) the explosive squib from each shear isolation valve of the Tip System.

These SRs provide the means of ensuring the PCIVs are OPERABLE and able to perform their safety function which is to provide primary containment isolation. The addition of new Surveillance Requirements, imposes additional operational requirements, and constitutes a more restrictive change. This change is not considered to result in any reduction to safety.

M5 CTS 3.7.D.3 (CTS 3.7.A.8) requirement, that the reactor to be in the cold condition within 24 hours if the requirements of CTS 3.7.D.1 or 3.7.D.2 (CTS 3.7.A.1 through 3.7.A.5) associated with inoperable PCIVs cannot be met, is being changed. Allowances have been added to the current requirements to allow additional time to restore inoperable PCIVs, however these changes are addressed in L1, L3, L4, L9, and L10. ITS 3.6.1.3 Required Action F.1 requires the plant to be in MODE 3 in 12 hours if the Required Action and associated Completion Times for Condition A, B, C, D, or E are not met in MODE 1, 2, or 3. In addition, ITS 3.6.1.3 Required Action F.2 places the plant in MODE 4 in 36 hours (L7). The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach the required plant condition from full power conditions in an orderly manner without challenging plant systems and is consistent with the requirements of NUREG-1433, Revision 1. Since, this change imposes additional operational and time requirements it is considered to be more restrictive. This change is not considered to result in any reduction to safety.

M6 Not Used.

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TECHNICAL CHANGES - MORE RESTRICTIVE

M7 CTS 4.7.B.4 requirement, that 27MOV-120 (12 inch, full-flow valve) be verified closed when containment integrity is established, and then once per month, is being revised. ITS SR 3.6.1.3.1, requires verification that each 20 and 24 inch primary containment purge and vent valve is closed every 31 days. Since the purge and vent valves are the actual primary containment isolation valves (PCIVs) associated with these penetrations, this change is appropriate. Since CTS 3.7.B.4 allows inerting and de-inerting operations only with valve 27MOV-121 (6 inch, low flow valve) it is understood that the primary containment purge and vent valves must be opened for these operations. Therefore, a Note has been added to proposed SR 3.6.1.3.1 which allows these operations to occur as long as the full-flow line (27MOV-120) is closed for protection of the SGT filter trains from over pressure concerns. This change is considered more restrictive since the primary containment vent and purge valves are required to be closed when these operations are not underway. This is consistent with current practice and in accordance with the UFSAR safety analyses. This assures that the requirements of the LOCA are met and ensures these valves are opened for a valid reason. This change is not considered to result in any reduction to safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA1 Not Used.

LA2 Not Used.

LA3 Not Used.

LA4 Not Used.

CTS Amend 260

DISCUSSION OF CHANGES
ITS: 3.6.1.3 - PRIMARY CONTAINMENT ISOLATION VALVES (PCIVs)

TECHNICAL CHANGES - LESS RESTRICTIVE (GENERIC)

LA5 Details in CTS 1.0.M.3, definition of Primary Containment Integrity (OPERABILITY), concerning automatic containment isolation valves (a de-activated valve in the isolated position ensures containment integrity) is being relocated to the Bases. The details for valve OPERABILITY are not necessary to ensure the Primary Containment Isolation Valves are OPERABLE. The requirements of ITS 3.6.1.3 which require the PCIVs to be OPERABLE and the definition of OPERABILITY suffice. ITS LCO 3.6.1.3 Bases clearly states that an automatic isolation valve is OPERABLE if de-activated and secured in the closed position. As such, these details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to the Bases will be controlled by the provisions of the Bases Control Program described in Chapter 5 of the ITS.

LA6 Design details in CTS 3.7.D.1, which provide the containment vent and purge Valve Numbers and Maximum Opening Angle limitations, are to be relocated to the UFSAR. These design details are not necessary to be included in the Technical Specifications to ensure the OPERABILITY of these Primary Containment Isolation Valves. The requirements of ITS 3.6.1.3 are adequate to ensure the PCIVs are maintained OPERABLE. The design details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to the UFSAR will be controlled by the provisions of 10 CFR 50.59.

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 CTS 4.7.D.1.a and CTS Table 4.2-1 Note 7, for actuation testing of PCIVs, stipulates a simulated automatic actuation test shall be performed. ITS SR 3.6.1.3.7 allows for use of an actual isolation signal, in addition to the simulated automatic initiation signal, for verifying that each PCIV actuates on an automatic initiation signal. This allows satisfactory actual automatic system initiations to be used to fulfill the Surveillance Requirements. Operability is adequately demonstrated in either case since the PCIVs cannot discriminate between

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L1 (continued)

"actual" or "simulated" signals. This change, to allow the use of actual automatic initiation signals, provides increased latitude for operations to complete the Surveillance Requirement and is therefore considered to be less restrictive.

L2 Not Used.

L3 CTS 3.7.D does not provide specific ACTIONS for those penetrations with two inoperable PCIVs unless the penetration is closed and no operable valves are required (CTS 3.7.D.2). ITS 3.6.1.3 ACTION B, to isolate the affected penetration flow path within 1 hour when one or more penetration flow paths exist with two PCIVs inoperable, for reasons other than Conditions D and E, is being added. Currently entry into CTS 3.7.D.3 is required and the plant must be in cold condition in 24 hours. The additional 1 hour allowed to isolate the affected penetration flow path provides a period of time to correct the problem commensurate with the importance of maintaining primary containment OPERABILITY during MODES 1, 2, and 3. Additionally, the one hour period ensures that the probability of an accident (requiring primary containment OPERABILITY) occurring during periods where primary containment is inoperable is minimized. This change, to allow 1 hour to isolate the affected penetration, provides relief for the current operational requirements to commence a plant shutdown, and therefore, is considered to be less restrictive.

L4 CTS 3.7.D does not provide specific ACTIONS for those penetration flow paths with one PCIV. Currently entry into CTS 3.7.D.3 is required and the plant must be in cold condition in 24 hours. ITS 3.6.1.3 ACTION C requires the affected penetration flow path to be isolated, within 72 hours. The 72 hour Completion Time is acceptable since the associated penetrations are part of a closed system which will act as a barrier. During the allowed time, a limiting event would still be assumed to be within the bounds of the safety analysis. Allowing this extended time potentially avoiding a plant transient caused by the immediate forced shutdown, is reasonable based on the low probability of an event, and does not represent a significant decrease in safety. In addition, to ensure the affected penetration are isolated on a periodic basis, Required Action C.2 has been added. Required Action C.2 will require the verification that each affected penetration flow path is isolated once per 31 days. The 31 day Frequency is acceptable since the devices are operated under administrative controls and the probability of misalignment is low.

RAI 3.6.1.3-4, RAI 3.6.1.3-8 TSTF-207 RS

RAI 3.6.1.3-5/TSTF-30 R3

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L5 CTS 3.7.D.2.b Completion Time of 4 hours, to isolate each affected penetration has been extended for certain penetrations (ITS 3.6.1.3 ACTION A). For penetrations with two PCIVs, proposed Required Action A.1 allows 8 hours for main steam line penetrations and 4 hours for other penetrations. During the allowed time, the limiting event would still be assumed to be within the bounds of the safety analysis since a second valve is available for isolation or in the case of EFCV penetrations, no credit is taken for isolation since the installed orifice will limit the leakage to within limits. This change is acceptable since the 8 hour Completion Time for MSIVs allows time to repair or reduce power to isolate the affected penetration. Allowing this additional time potentially avoids a plant transient caused by a reduction in power to close the MSIVs.

L6 A new method of isolating penetrations is proposed to be added to CTS 3.7.D.2.c when one or more penetration flow paths with one PCIV is inoperable (except for when MSIV or hydrostatically tested valve leakage is not within limits). ITS 3.6.1.3 Required Action A.1 allows the penetration to be isolated by a check valve with flow through the valve secured. This is acceptable for penetrations with only one PCIV inoperable because the other PCIV remains Operable, the likelihood of an event occurring in which a containment isolation is required is remote, the penetration is isolated by a check valve, and the remaining Operable PCIV not being able to also isolate the penetration is remote. This description has also been added to the Bases to describe a passive PCIV.

L7 CTS 3.7.D.3 (CTS 3.7.A.8) requirement, that the reactor be in the cold condition within 24 hours if the requirements of CTS 3.7.D.1 or 3.7.D.2 (3.7.A.1 through 3.7.A.5) with respect to PCIVs cannot be met, is being relaxed. Allowances have been added to the current requirements to allow additional time to restore inoperable PCIVs, however these changes are addressed in L1, L3, L4, L9, and L10. Proposed ITS 3.6.1.3 Required Action F.2 allows the plant 36 hours to reach COLD SHUTDOWN (MODE 4) if the Required Action and Completion Time of Condition A, B, C, D, or E cannot be met in MODE 1, 2, or 3. However, ITS 3.6.1.3 Required

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L7 (continued)

Action F.1 requires the plant to be in MODE 3 in 12 hours (M5). 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 F.1 and F.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 3.6.1.3, Required Action F.1 will require the plant be placed in MODE 3 within 12 hours once the determination is made that the Required Action or Completion Time associated with the PCIVs cannot be satisfied. 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. This change is consistent with NUREG-1433, Revision 1.

L8 The periodic verification that a penetration is isolated to comply with CTS 4.7.D.2 (proposed LCO 3.6.1.3 Required Actions A.2 and C.2) is proposed to be changed from a daily recording requirement to a monthly verification or a verification "Prior to entering MODE 2 or 3 from MODE 4, if primary containment was de-inerted while in MODE 4, if not performed within the previous 92 days, for isolation devices inside primary containment." These valves are under administrative controls and are operated in strict accordance with plant procedures. To verify that these valves are still isolated on a daily basis places an undue burden on plant operations with little if any gain in safety, since these valves are rarely found in the unisolated condition, once closed.

Editorial

L9 CTS 3.7.D.2 does not provide specific ACTIONS for those penetration flow paths with leakage limits of one or more MSIVs exceeded. As a result, entry into CTS 3.7.A.8 is required and the plant must be in cold condition in 24 hours. ITS 3.6.1.3 ACTION D, establishes the Condition for one or more penetration flow paths with one or more MSIVs not within leakage rate limits. Associated ITS 3.6.1.3 Required Action D.1, requires restoring leakage rate to within limit, within a Completion Time of 8 hours. The Completion Time is consistent with the time provided in Required Action A.1 for other inoperabilities associated with the MSIVs (L5). The additional 8 hours allowed to restore leakage within the limit provides a period of time to correct the problem commensurate with the importance of maintaining primary containment Operability during MODES 1, 2, and 3. The 8 hour Completion Time is reasonable considering the time required to restore the leakage by

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L9 (continued)

isolating the penetration, the fact that MSIV closure will result in isolation of the main steam line(s) and a potential for plant shutdown, and the relative importance of leakage to the overall containment function. This change is acceptable since the closure of one MSIV in each penetration flow path will ensure the consequences of a design basis accident will be bounded by the USFAR analysis.

L10 A new ACTION has been added to CTS 3.7.A.2 (ITS 3.6.1.3 ACTION E) which will allow 72 hours to restore leakage rate to within limit for one or more air operated testable check valves associated with the Low Pressure Coolant Injection and Core Spray Systems injection penetrations. The additional 72 hours to restore leakage within the limit provides a period of time to correct the problem commensurate with the importance of maintaining primary containment Operability in MODES 1, 2 and 3. The associated penetrations are normally isolated during plant operations by a motor operated PCIV. In addition, there is an additional motor operated valve (which is hydrostatically leak tested under the IST program) available to isolate the penetration. Therefore, excessive leakage will be minimized by this closed motor operated PCIV and therefore ALARA concerns in the reactor building will be minimized. In the event of a pipe rupture outside of containment gross leakage is limited by the air operated testable check valve inside containment, however if it is inoperable the motor operated PCIV will also minimize the leakage. The reactor building includes radiation monitors which will provide audible and visual alarms to the control room. The Keep Full low level alarms and the reactor building floor drain sump high level alarms are available to indicate excessive primary coolant leakage. Therefore, since isolation methods exists to limit the leakage and since the plant is instrumented with diverse methods to detect leaks within the reactor building this 72 hour allowance is acceptable. This time is consistent with the Completion Times for other penetration flow paths with two PCIVs (one PCIV inoperable for reasons other than leakage) as indicated in ITS 3.6.1.3 Action A.

RAI 3.6.1.3-4

L11 CTS 4.7.D.2 Surveillance Requirement, to verify (each 31 days) that a penetration flow path with an inoperable PCIV is isolated, is being supplemented. ITS 3.6.1.3 Required Actions A.2 and C.2 include two Notes. Note 1 allows isolation devices in high radiation areas to be verified by use of administrative means. This allowance is considered acceptable since access to these areas is typically restricted, and therefore the probability of misalignment once they have been verified to be in the proper position is low and the allowance is also consistent

TSTF-169, R2

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L11 (continued)

with Note 1 provided in the new proposed ITS SR 3.6.1.3.2 and SR 3.6.1.3.3 (M4). Note 2 allows isolation devices that are locked, sealed, or otherwise secured to be verifiecd by administrative means. This allowance is considered acceptable since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertantly mispositioned. These changes provide plant operations additional latitude in verifying isolation device position, and therefore, are considered to be less restrictive.

TSTF-269, R2

L12 The specific valve numbers of the Low Pressure Coolant Injection and Core Spray System in CST 4.7.A.2.c are proposed to be deleted. It is unnecessary for the Technical Specifications to prescribe component identification numbers since these details are not necessary to ensure the associated leakage limits are met. ITS SR 3.6.1.3.11 which requires the verification that the leakage rate of each air operated testable check valve associated with the Low Pressure Coolant Injection and Core Spray System vessel injection penetrations is < 10 gpm at 1035 psig when hydrostatically tested or 11 scfm when pneumatically tested is sufficient ensure the appropriate testing is performed.

RAI 3.6.1.3-7

L13 The CTS 4.7.D.2.c requirement to demonstrate the leakage rate of the Low Pressure Coolant Injection (LPCI) System and Core Spray System injection penetration air operated testable check valves is within limits once per 24 months is proposed to be relaxed. ITS SR 3.6.1.3.11 Frequency of leakage rate testing of the valves is proposed to be changed to "In Accordance with the Primary Containment Leakage Rate Testing Program." These air operated testable check valves have been subjected to 10 CFR 50, Appendix J, Type C testing (using the alternate test methods and acceptance criteria stated in CTS 4.7.D.2.c) since approval of CTS Amendment 40 on November 9, 1978. Under the Primary Containment Leakage Rate Testing Program valves subjected to Type C testing are tested once every 30 months (and the 30 month test interval may be extended to 60 months with satisfactory test performance). The operating experience gained by more than 20 years of testing, as required by CTS 4.7.D.2.c and under the Inservice Test (IST) Program requirements, has demonstrated reliable operation, leak tightness, and structural integrity of the valves. The associated penetrations are normally isolated during plant operations by motor operated PCIVs. In addition, there is an additional motor operated valve (which is hydrostatically leak tested under the IST program) available to isolate each

TECHNICAL CHANGES - LESS RESTRICTIVE (SPECIFIC)

L13 (continued)

penetration. Excessive leakage in an air operated testable check valve would be detected during testing of the normally closed PCIV as required by the IST Program and significant leakage to the Secondary Containment (reactor building) would result in actuation of radiation monitors which will provide audible and visual alarms to the control room. Further, reactor building floor drain sump high level alarms are available to indicate excessive reactor coolant leakage. The small increase in the test interval (6 months, until test results indicate additional relaxation is acceptable), testing over a long time period that has demonstrated reliability, other isolation methods that exist to limit potential leakage, and diverse instrumentation methods to detect potential leaks within the reactor building, make the proposed relaxation of the test Frequency acceptable.

RAI 3.6.1.3-7

TECHNICAL SPECIFICATIONS - RELOCATIONS

None