

December 5, 1997

Ms. Irene Johnson, Acting Manager  
Nuclear Regulatory Services  
Commonwealth Edison Company  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - BYRON STATION, UNITS 1  
AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2 (TAC NOS. M97548,  
M97549, M97546 AND M97547)

Dear Ms. Johnson:

On December 13, 1996, Commonwealth Edison Company (ComEd) proposed to amend the technical specifications (TS) for Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, to be consistent with the improved TS in NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1. During the course of our review, we have identified the need for further information as discussed in the enclosed request for additional information (RAI). This request seeks to clarify Sections 3.0, 3.7 and 3.9

To support the NRC staff's review schedule, your written and electronic response to this RAI is requested within 30 days of the date of this letter. Should you have any questions, please contact me at (301) 415-1391.

Sincerely,

Orig. signed by  
Ramin R. Assa, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,  
STN 50-456, STN 50-457

Enclosure: RAI

cc w/encl: see next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 5, 1997

Ms. Irena Johnson, Acting Manager  
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Commonwealth Edison Company  
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1400 Opus Place, Suite 500  
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Dear Ms. Johnson:

On December 13, 1996, Commonwealth Edison Company (ComEd) proposed to amend the technical specifications (TS) for Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, to be consistent with the improved TS in NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1. During the course of our review, we have identified the need for further information as discussed in the enclosed request for additional information (RAI). This request seeks to clarify Sections 3.0, 3.7 and 3.9.

To support the NRC staff's review schedule, your written and electronic response to this RAI is requested within 40 days of the date of this letter. Should you have any questions, please contact me at (301) 415-1391.

Sincerely,

A handwritten signature in black ink, appearing to read "Ramin R. Assa", is written over a horizontal line.

Ramin R. Assa, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,  
STN 50-453, STN 50-457

Enclosure: RAI

cc w/encl: see next page



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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.0, LCO and SR Applicability**

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**3.0-01**      DOC LA1  
              CTS 3.0.5 and 4.0.6

Both Byron and Braidwood are dual unit sites; therefore, CTS 3.0.5.a and b are essential to understanding how the LCOs, in the CTS and now in the ITS, apply equally or individually to each unit. The STS was developed based upon a single unit site. The adaption of the STS to a multiple unit site occurs during this conversion which strives to maintain the current licensing basis of the CTS. CTS 3.0.5 and CTS 4.0.6 must be retained as written except for CTS 3.0.5.c which must delete "footnotes". This is because the STS only permits Notes in the body of the requirements. **Comment:** Identify all Unit 1 and 2 shared systems or shared supporting systems to the ITS LCOs. DOC LA1 must be rewritten as an administrative change to retain CTS 3.0.5 and CTS 4.0.6.

**ComEd Response:**

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**3.0-2**      JFD BP1  
              Bases for ITS Section 3.0

The following proposed editorial differences between the STS and ITS Bases are not accepted because they are no clearer than the STS wording and in some cases change the meaning.

Page B 3.0-2 and LCO 3.0.2

- "In this instance," *replaces* "where this is the case"
- "and the new LCO is not met" *is added*
- "new" *replaces* "associated"

Page B 3.0-3 and LCO 3.0.3

- "no single Condition or combination ... that corresponds" *replaces* "no combination ... that exactly corresponds"
- "... warranted. In such cases, the Conditions corresponding to such combinations state that LCO 3.0.3 shall be entered" *replaces* "... warranted; in such cases, the ACTIONS specifically state a Condition corresponding to such combinations and also that LCO 3.0.3 be entered"

- "LCO" *replaces* "Specification"

Page B 3.0-4 and LCO 3.0.3

- "remedial measures" *replaces* "appropriate remedial measures"

Page B 3.0-5 and LCO 3.0.4

- "different MODE" *replaces* "MODE"

Page B 3.0-6 and LCO 3.0.5

- "LCO" *replaces* "Specification"

Page B 3.0-8 and LCO 3.0.6

- "systems' Conditions ..." *replaces* "systems' LCOs' Conditions ..."

**Byron & Braidwood Improved TS Review Comments**  
**Section 3.0, LCO and SR Applicability**

Page B 3.0-13 and SR 3.0.3

- "delay period" *replaces* "time limit"

Page B 3.0-13 and SR 3.0.3

- "... MODE changes imposed by Required Actions or a reactor trip." *replaces* "... MODE changes imposed by Required Actions."

**Comment:** These differences are not justifiable on a plant-specific or editorial basis. Revise the Bases for ITS Section 3.0 to adopt the STS language for the cases listed.

**ComEd Response:**

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**3.0-03** JFD BC2  
Bases for ITS LCO 3.0.1

Proposed differences from the Bases for STS LCO 3.0.1 are based on TSTF-08, Rev. 1. However, this STS generic change proposal was superceded by TSTF-08, Rev. 2, which the NRC approved on 8/20/97. **Comment:** Revise the Bases for ITS LCO 3.0.1 to conform to the Bases for STS LCO 3.0.1 as modified by TSTF-08, Rev. 1.

**ComEd Response:**

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**3.0-4** JFDs P1 and C5  
JFDs BC7 and P2  
ITS LCO 3.0.4  
Bases for ITS LCO 3.0.4, STS Bases markup page B 3.0-6

(1) The last sentence of the first paragraph of ITS LCO 3.0.4 and the last sentence of the paragraph at the top of the referenced page in the STS Bases markup differ from the STS, as follows. In the LCO, the ITS omits the words "or that are part of a shutdown of the unit;" in the Bases the ITS replaces the phrase "any unit shutdown" with "a shutdown performed in response to the expected failure to comply with ACTIONS." These differences are based on TSTF-103, which has not yet been approved by the NRC.

**Comment:** Revise the submittal to adopt the STS wording.

(2) The ITS replaces the next to last paragraph in the Bases for STS LCO 3.0.4 with a paragraph proposed by TSTF-103. Because there are no Mode restrictions proposed for LCO 3.0.6 in the ITS, neither of these paragraphs are needed. They should both be omitted. **Comment:** Revise the Bases to omit the paragraph described.

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments  
Section 3.0, LCO and SR Applicability**

**3.0-05** JFD C3  
JFD BC5  
ITS LCO 3.0.5

ITS LCO 3.0.5 differs from STS LCO 3.0.5 because it incorporates wording changes based on TSTF-01, Rev. 1. NRC rejected this STS generic change proposal on 9/16/96.  
**Comment:** Revise the submittal to adopt STS LCO 3.0.5.

**ComEd Response:**

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**3.0-06** JFD C3 (?)  
JFD BC10  
ITS LCO 3.0.6  
Bases for ITS LCO 3.0.6

The ITS replaces the STS words "testing required" with "required testing" in LCO 3.0.6. It could not be determined which JFD applies to this difference. In addition, the ITS replaces the STS term "SR" with "required testing" in several places in the Bases for LCO 3.0.6. In one case in the Bases, the ITS replaces the STS phrase "allowed SRs" with "required testing to demonstrate Operability." These differences from the STS Bases are based on not-approved-by-the-NRC WOG-77, which is referenced by JFD BC10.

**Comment:** The term "required testing" is not defined and could be construed to mean testing other than required by TS. The existing language in the STS is clear. Revise the Bases to adopt the STS wording.

**ComEd Response:**

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**3.0-07** JFD C8  
ITS LCO 3.0.6

In the first paragraph of LCO 3.0.6, the ITS replaces the STS phrase "additional evaluations and limitations may be required" with "an evaluation shall be performed." This difference is based on not-approved-by-the-NRC WOG-78. **Comment:** STS LCO 3.0.6 is an industry creation and should be adopted as written. Revise ITS LCO 3.0.6 to conform to the STS wording.

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.0, LCO and SR Applicability**

**3.0-08 Bases for ITS LCO 3.0.6**

The Bases of LCO 3.0.6 in NUREG-1431, Rev. 1, has been revised with an example illustrating the application of the Safety Function Determination Program. This revision was based on TSTF-71, Revision 1, approved by the NRC on 10/2/97. The Bases for ITS LCO 3.0.6 did not propose to adopt this STS generic change. **Comment:** Revise the Bases for ITS LCO 3.0.6 to incorporate TSTF-71, Revision 1, since it has been approved.

**ComEd Response:**

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**3.0-09 JFD BP1**

Bases discussion of LCO 3.0.7, STS markup page B 3.0-9

In the second paragraph, the deletion of The second sentence, "Compliance with Test Exception LCOs is optional." is not adopted. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to adopt this sentence.

**ComEd Response:**

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**3.0-10 JFD P2**

JFD BP5 (and reference to NRC-rejected TSTF-41)  
ITS LCO 3.0.7 and associated Bases

ITS proposes to replace the STS term "Test Exception LCOs" with "Special Exception LCOs" in one place in the Bases for ITS LCO 3.0.7, and with "Exception LCOs" elsewhere in LCO 3.0.7 and the associated Bases. JFD P2 basis this difference on consistency with TSTF-41, which the NRC has rejected, and an apparent need to expand the provisions of LCO 3.0.7 to apply "to more than testing such as special tests and operations."

**Comment:** STS generic change proposal TSTF-41 was rejected by the staff on 5/8/97. Revise ITS LCO 3.0.7 and associated Bases to conform to the STS.

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.0, LCO and SR Applicability**

**3.0-11 JFD BC6**  
**Bases for ITS SR 3.0.2**

The third paragraph of the STS Bases for STS SR 3.0.2 presents an example of a surveillance for which the allowance to extend the specified Frequency by 25% would not be permitted (a containment leakage rate testing surveillance). STS generic change proposal TSTF-52 revises this example consistent with the adoption of Option B to Appendix J and the creation of an STS administrative controls programmatic requirement, the Containment Leakage Rate Testing Program. The ITS proposes to adopt the STS changes proposed in TSTF-52. **Comment:** Staff has not yet approved TSTF-52. In addition, the proposed change to the Bases obscures the point trying to be made - the reason the 25% allowance does not apply. Revise the submittal consistent with the plant-specific resolution of issues related to adopting Option B, but make sure the Bases clearly explain why the 25% allowance does not apply to the surveillance described in the example.

**ComEd Response:**

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**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

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**ITS 3.7.1, Main Steam Safety Valves (MSSVs)**

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3.7.1-1      DOC A.1  
              DOC A.3  
              DOCL.1  
              JFD B.1  
              JFD B.2  
              JFD B.22  
              JFD C.3  
              JFD Bases B.1  
              JFD Bases B.21  
              JFD Bases C.2  
              JFD Bases P.1  
              CTS 3.7.1.1  
              CTS 3.7.1.1 ACTIONS  
              CTS Table 3.7-1  
              STS LCO 3.7.1  
              STS 3.7.1 ACTION A  
              STS 3.7.1 TABLE 3.7.1.-1  
              ITS LCO 3.7.1  
              ITS 3.7.1 ACTION A  
              ITS 3.7.1 TABLE 3.7.1-1 and Associated Bases

CTS 3.7.1.1 has been modified by a number of changes designated as A.3. These changes were approved by the Staff in Amendment 79 for Braidwood and Amendment 87 for Byron dated 4/15/97. CTS 3.7.1.1, and its associated ACTION statements as modified by the approved A.3 and CTS TABLE 3.7-1 have been further modified to reflect the changes made to STS LCO 3.7.1, STS 3.7.1 ACTION A and STS 3.7.1 TABLE 3.7.1-1 by WOG-83. These changes are designated as A.1 and L.1 in the CTS markup and B.1., B.2, B.22, C.3, Bases B.1, Bases B.21, Bases C.2 and Bases P.1 in the ITS markup. WOG-83 has not been submitted to the staff by the Owner's Group for review and is thus, considered to be a beyond scope of review item for this conversion. **Comment:** Delete this generic change, revise the CTS and STS/ITS markups to either reflect the current CTS as modified by A.3 or the STS, and provide the appropriate discussions and justifications for the changes.

**ComEd Response:**

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3.7.1-2      JFD Bases C.4  
              STS B3.7.1 Bases - BACKGROUND  
              ITS B3.7.1 Bases - BACKGROUND

ITS B3.7.1 Bases - BACKGROUND modifies STS B3.7.1 Bases - BACKGROUND in accordance with TSTF-44 Revision 1. TSTF-44 Rev. 0 was rejected by the staff and



**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

TSTF-44 Revision 1 has not been submitted for staff review. Thus this change is considered a beyond scope of review item for this conversion. See Item Number 3.6.3-1. Delete this generic change.

**ComEd Response:**

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3.7.1-3      None  
              STS B3.7.1 Bases - LCO  
              ITS B3.7.1 Bases - LCO  
              ITS B3.7.1 Bases SR 3.7.1.1

ITS B3.7.1 Bases - LCO relocates the third paragraph of STS B3.7.1 Bases - LCO which states "The lift settings, ... and pressure" to ITS B3.7.1 Bases SR 3.7.1.1. No justification is provided for this generic change. **Comment:** Delete this generic change or provide a discussion and justification for the relocation based on current licensing basis, system design or operational constraints.

**ComEd Response:**

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**ITS 3.7.2, Main Steam Isolation Valves (MSIVs)**

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3.7.2-1      DOC A.2  
              DOC A.10  
              DOC M.2  
              DOC L.6  
              DOC L.7  
              JFD C.6  
              JFD C.8  
              JFD Bases B.2  
              JFD Bases C.7  
              JFD Bases C.8  
              CTS 3.7.1.5 ACTIONS  
              STS 3.7.2 ACTIONS and Associated Bases  
              ITS 3.7.2 ACTIONS and Associated Bases

CTS 3.7.1.5 ACTIONS have been modified by a number of changes designed A.2, A.10, M.2, L.6, L.7 to reflect the changes made to STS 3.7.2 ACTIONS and Associated Bases by TSTF-102 and WOG-64. These changes are designed C.6 and Bases C.7 for TSTF 102 and C.8, Bases B.2 and Bases B.8 for WOG-64. TSTF-102 has been rejected by the staff while it is our understanding that WOG-64 has been withdrawn. **Comment:** Revise the CTS/ITS markups to delete these generic change and provide the appropriate CTS/ITS markups to reflect the CTS or the STS. Provide any additional discussions and justifications for the changes.

**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

**ComEd Response:**

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**3.7.2-2**      DOC A.10  
                 CTS 3.7.1.5 ACTION - MODE 1  
                 ITS 3.7.2 ACTION B

CTS 3.7.1.5 ACTION MODE 1 requires that if one MSIV cannot be restored to OPERABLE status in 4 hours, then be in HOT STANDBY (MODE 3) in 6 hours and in HOT SHUTDOWN in another 6 hours. ITS 3.7.2 ACTION B only requires the unit in MODE 2 for one inoperable MSIV not restored within the Completion Time. This is not an administrative change as identified by A.10 but a less restrictive change. **Comment:** Revise the submittal, provide additional discussion and technical justification for this Less Restrictive change.

**ComEd Response:**

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**3.7.2-3**      D/DOC M.3  
                 JFD P.6  
                 JFD Bases P.7  
                 CTS 4.7.1.5  
                 STS SR 3.7.2.1  
                 ITS SR 3.7.2.1  
                 ITS SR 3.7.2.2 and Associated Bases

CTS 4.7.1.5 requires the verification of full closure of each MSIV in 5 seconds when tested in accordance with CTS 4.0.5. The equivalent STS SR for this CTS requirement is STS 3.7.2.1. The ITS markup breaks STS SR 3.7.2.1 into two SRs - ITS SR 3.7.2.1 (verification of closure is 5 seconds) and ITS SR 3.7.2.2 (verification of closure by actual or simulated signal). The justification for this change (P.6) is that if the valve fails the closure time SR, there is no need to perform a full actuation test (ITS SR 3.7.2.2) since closure time can be measured without this test. This change is considered to be a generic change which is beyond the scope of review for this conversion. See Item Number 3.7.3-2. **Comment:** Delete this generic change.

**ComEd Response:**

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**3.7.2-4**      JFD P.28  
                 JFD Bases P.5  
                 JFD Bases P.6  
                 CTS 3/4.6.3  
                 CTS 3/4.7.1.5  
                 ITS 3.6.3 APPLICABILITY



**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

**STS 3.7.2 APPLICABILITY**

**ITS 3.7.2 APPLICABILITY and Associated Bases.**

The APPLICABILITY of CTS 3.6.3 and ITS 3.6.3 is MODES 1, 2, 3, and 4. The APPLICABILITY of CTS 3.7.1.5 is MODES 1, 2, and 3. The APPLICABILITY of STS 3.7.2 is MODE 1 and MODES 2 and 3 except when the ... valves are closed and de-activated. ITS 3.7.2 APPLICABILITY changes the STC APPLICABILITY to MODES 1, 2 and 3. Contrary to P.28 this is not consistent with CTS 3.6.3 or ITS 3.6.3. Also, this does not address the importance of the phrase "except when ... deactivated" which means the valves are performing their isolation function, when they are closed and hence the LCO does not apply. This change is considered to be a generic change and is beyond scope of review item for this conversion. See Item No. 3.7.3-5. **Comment:** Delete this generic change.

**ComEd Response:**

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3.7.2-5      JFD Bases C.4  
                 ITS B3.7.2 Bases

**Comment:** See Item Number 3.6.3-1

**ComEd Response:**

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3.7.2-6      STS B3.6.2 Bases - SR 3.7.2.1  
                 ITS B3.7.2 Bases - SR 3.7.2.1

STS B3.7.2 Bases - SR 3.7.2.1 states the following in the last paragraph: "The test is conducted in MODE 3 with the unit at operating temperature and pressure as discussed in Reference 5 exercising requirements." ITS B3.7.2 Bases - SR 3.7.2.1 deletes the last part of this sentence "as discussed ... requirements." No justification is provided for this deletion. **Comment:** Provide a discussion and justification for this deletion based on current licensing basis, system design, or operational constraints.

**ComEd Response:**

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**ITS 3.7.3, Main Feedwater (FW) Isolation Valves**

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3.7.3-1      DOC A.5  
                 DOC A.37  
                 DOC A.38  
                 DOC A.39  
                 DOC A.41  
                 DOC A.47

**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

DOC M.11  
DOC LA.34  
DOC LA.35  
DOC LA.37  
DOC L.25  
DOC L.26  
JFD C.6  
JFD P.6  
JFD P.20  
JFD P.27  
JFD P.28  
JFD Bases C.4  
JFD Bases C.7  
JFD Bases P.6  
JFD Bases P.7  
JFD Bases P.36  
JFD Bases P.48  
CTS 3/4.6.1.1  
CTS 3/4.6.3  
STS 3.7.3 and Associated Bases  
ITS 3.6.3  
ITS 3.7.3 and Associated Bases

CTS 3/4.6.1.1 and 3/4 6.3 contain the requirements for all feedwater valves which perform a containment isolation function. These requirements have been retained in the ITS in ITS 3.6.3 (See Item Number 3.6.3-1). The CTS does not contain a feedwater isolation valve LCO that addresses the other safety function OPERABILITY requirements. (See STS B3.7.3 Bases). It is acceptable to add ITS 3.7.3 under the guidance of NUREG-1431, based on these other safety function OPERABILITY requirements, not the containment isolation function, even though some of the ACTIONS and SRs may be the same as required by CTS 3/4.6.1.1, and 3/4.6.3, and ITS 3.6.3. In addition, this new LCO as described by justifications A.5 and M.11 have been altered by rejected generic changes - TSTF-44 (see Item Numbers 3.6.3-1, 3.7.1-2, 3.7.2-5, and 3.7.4-3) and TSTF-102 (see Item Number 3.7.2-1), as well as other changes which the staff considers to be generic. **Comment:** Revise the CTS /ITS markup to delete the reference to and markups of CTS 3/4.6.1.1 and 3/4.6.3 and TSTF- 44 and TSTF-102. Refer to Item Numbers 3.7.3-2, 3.7.3-3, 3.7.3-4, and 3.7.3-5 for additional comments that reflect changes to the CTS markup of justification M.11 (CTS Insert 3.6.1-A).

**ComEd Response:**

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**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

3.7.3-2      DOC M.11  
              DOC L.25  
              JFD P.6  
              JFD Bases P.7  
              STS SR 3.7.3.1  
              ITS SR 3.7.3.1  
              ITS SR 3.7.3.2 and Associated Bases

The ITS markup breaks STS SR 3.7.3.1 into two SRs - ITS SR 3.7.3.1 (verification of closure in specified time limit) and ITS SR 3.7.2.2 (verification of closure by actual or simulated signal). The justification for this change (P.6) is that if the valve fails the closure time SR, there is no need to perform a full actuation test (ITS SR 3.7.3.2) since closure time can be measured without this test. This change is considered to be a generic change which is beyond the scope of review for this conversion. See Item Number 3.7.2-3.  
**Comment:** Delete this generic change.

**ComEd Response:**

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3.7.3-3      DOC M.11  
              JFD P.6  
              JFD P.20  
              JFD Bases P.36  
              STS SR 3.7.3.1 and Associated Bases  
              ITS SR 3.7.3.1 and Associated Bases

STS SR 3.7.3.1 and its Associated Bases specifies the closure time of  $\leq [7]$  seconds for each main feedwater isolation valve. Justification P.6 separates STS 3.7.3.1 into two SRs (see Item 3.7.3-2). Justification P.20 and Bases P.36 relocates the closure time for the FW isolation valves to the TRM. While the staff finds the modification made by ITS SR 3.7.3.1 of STS SR 3.7.3.1 in which the specific closure time is changed to "within limits" due to the number of valves involved and the different closure times, we do not find the relocation of the times to the TRM as acceptable. The times should be listed in the ITS B3.7.3 Bases - SR 3.7.3.1 as is specified in the STS and to be consistent with other multi-limit components in other LCOs. In addition the staff finds that the relocation of the closure times to the TRM and associated changes to the Bases (Bases P.36) to be generic. **Comment:** Revise ITS B3.7.3 Bases - SR 3.7.3.1 to include the closure times for each FW isolation valve.

**ComEd Response:**

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**3.7.3-4**      DOC M.11  
                 JFD P.27  
                 JFD Bases P.48  
                 STS 3.7.3 ACTIONS Note  
                 ITS 3.7.3 ACTIONS Note 2 and Associated Bases

ITS 3.7.3 adds the following Note to the ACTIONS section: "2. Flow path(s) may be unisolated intermittently under administrative controls." While this statement is acceptable in STS/ITS 3.6.3, it has not been approved for STS 3.7.3, nor according to CTS 4.6.1.1a and CTS Table 3.6-1 have the FW isolation valves been granted this exception. Thus the staff considers this change to be generic and beyond the scope of review for this conversion. **Comment:** Delete this generic change.

**ComEd Response:**

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**3.7.3-5**      DOC M.11  
                 JFD P.28  
                 JFD Bases P.6  
                 CTS 3/4.6.3  
                 ITS 3.6.3 APPLICABILITY  
                 STS 3.7.3 APPLICABILITY  
                 ITS 3.7.3 APPLICABILITY and Associated Bases

The APPLICABILITY of CTS 3.6.3 and ITS 3.6.3 is MODES 1,2,3, and 4. The APPLICABILITY of STS 3.7.3 is MODES 1, 2, and 3 except when ... is closed and [de-activated][or isolated by a closed manual valve]. ITS 3.7.3 APPLICABILITY changes the STS APPLICABILITY to MODES 1, 2 and 3. Contrary to P.28 this is not consistent with CTS 3.6.3 or ITS 3.6.3. Also this does not address the importance of the phrase "except when ... valve." which means the valves are performing their isolation function when they are closed and hence the LCO does to apply. This change is considered to be a generic change and is a beyond the scope review item for this conversion. See Item Number 3.7.2-4. **Comment:** Delete this generic change.

**ComEd Response:**

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**3.7.3-6**      JFD Bases P.36  
                 STS B 3.7.3 Bases - LCO  
                 ITS B 3.7.3 Bases - LCO

STS B 3.7.3 Bases - LCO the last sentences in the first paragraph states the following: "These valves will also isolate the non-safety related portions from the safety related portions of the system." ITS B 3.7.3 Bases - LCO deletes this sentence. No justification is provided except for the general justification (Bases P.36) on system design. This is an

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inadequate justification for the change. The deletion of this statement implies that all of the main feedwater system is safety related. **Comment:** Provide additional discussion and justification for this deletion based on current licensing basis, system design, or operational constraints.

**ComEd Response:**

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- 3.7.3-7**      JFD Base P.36  
                 STS B 3.7.3 Bases - SR 3.7.3.1 and REFERENCES  
                 ITS B 3.7.3 Bases - SR 3.7.3.1 and REFERENCES

STS B 3.7.3 Bases - SR 3.7.3.1 states the following in the first paragraph: "These valves should not be tested at power .... ASME Code, Section XI (Ref.2) ... operation in MODES 1 and 2." ITS B 3.7.3 Bases - SR 3.7.3.1 deletes these sentences and Reference 2 from the REFERENCE Section. No justification is provided except for the general justification (Base P.36) on system design. This is an inadequate justification for this change.

**Comment:** Provide additional discussion and justification for this deletion based on current licensing basis, system design, or operational constraints.

**ComEd Response:**

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**ITS 3.7.4, Steam Generator (SG) Power Operated Relief Valves (PORVs)**

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- 3.7.4.1**      DOC M.11  
                 JFD B.19  
                 JFD P.2  
                 JFD Bases P.2  
                 JFD Bases B.15  
                 STS 3.7.4 APPLICABILITY  
                 STS 3.7.4 RA C.2 and Associated Completion Time  
                 ITS 3.7.4 APPLICABILITY and Associated Bases  
                 ITS 3.7.4 RA C.2, Associated Completion Time and Associated Bases

STS 3.7.4 APPLICABILITY and the APPLICABILITY of a number of other 3.7 STS require the SG PORVs to be OPERABLE in "MODE 4 when the steam generator is relied upon for heat removal." STS 3.7.4 RA C.2 requires if the Required Action and Associated Completion Times are not met, the plant must "Be in MODE 4 without reliance upon steam generator for heat removal" in a Completion Time of 18 hours. The other 3.7 STS either have similar ACTIONS or different ACTIONS as well as additional notes to LCOs and SRs which relate to the system's OPERABILITY in MODE 4 when the steam generator is relied upon for heat removal. ITS 3.7.4 and the other 3.7 STS have been modified to delete this OPERABILITY requirement and change the associated ACTIONS, Completion Times and Notes. These changes in ITS 3.7.4 are designated as B.19, P.2, Bases P.2 and Bases B.15 (see Item Numbers 3.7.5-3 and 3.7.6-1 for applicable DOCs and JFDs). This

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proposed change was submitted to the staff in TSTF-29 and rejected, based on the fact that the change over from Auxiliary Feedwater (AF) System to Residual Heat Removal (RHR) System does not take place exactly at the MODE 3 to MODE 4 change over but at some time into MODE 4, as well as the fact that the AF System is also used for startup in MODE 4. **Comment:** Delete this change.

**ComEd Response:**

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3.7.4-2      DOC M.11  
                 JFD P.24  
                 JFD Bases P.44  
                 STS 3.7.4 RA A.1 Completion Time  
                 ITS 3.7.4 RA A.1 Completion Time

With one SG PORV line inoperable, ITS 3.7.4 RA A.1 Completion Time has been extended from the STS specified 7 days to 30 days. The basis is that it has taken longer than 7 days in the past to restore a SG PORV line to OPERABLE status. This is an inadequate justification because the issue not addressed should be re-establishing in a timely manner the safety assumption for an SGTR event. In addition no information is provided to show that the SG PORVs at Byron/Braidwood are any different than the PORVs/ADVs at other plants that would require this 4 fold increase in the Completion Time. **Comment:** Delete this change or provide additional discussion and technical justification to show that the valves are sufficiently different from the PORVs/ADVs at other plants.

**ComEd Response:**

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3.7.4-3      JFD C.4  
                 ITS B3.7.4 Bases - BACKGROUND AND APPLICABLE SAFETY ANALYSES

ITS B3.7.4 Bases add words to the BACKGROUND and APPLICABLE SAFETY ANALYSES section that states that the SG PORVs are containment isolation valves (CIV) and the CIV function is addressed ITS 3.6.3 "Containment Isolation Valves." While the statements are true the justification (C.4) used to add the statements is unacceptable. C.4 refers to TSTF-44, Rev. 1. TSTF-44 Rev. 0 has been rejected by the staff and TSTF-44 Rev. 1 has not been submitted for staff approval. This change is considered a beyond scope of review item for this conversion. See Item Number 3.6.3-1. **Comment:** Delete this generic change.

**ComEd Response:**



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**ITS 3.7.5, Auxiliary Feedwater (AF) System**

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3.7.5-1      DOC A.29  
              JFD P.14  
              JFD Bases P.40  
              CTS 4.7.1.2.2  
              STS SR 3.7.5.5  
              ITS SR 3.7.5.5 and Associated Bases

CTS 4.7.1.2.2 requires "an auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN..." STS SR 3.7.5.5 requires this SR be performed whenever the unit has been in MODE 5 or MODE 6 for greater than 30 days. ITS SR 3.7.5.5 adds "or defueled for a cumulative period of" to the STS SR Frequency. This is a generic change which is beyond scope of review item for this conversion. **Comment:** Delete this generic change.

**ComEd Response:**

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3.7.5-2      DOC LA.4  
              CTS 3.7.1.2.b  
              CTS 4.7.1.2.3

CTS 3.7.1.2.b specifies the minimum diesel day tank volume of the diesel-driven AF system pump and CTS 4.7.1.2.3 specifies the SR needed to be performed and the frequency to demonstrate that the AF system diesel-driven pump is OPERABLE. The justification (LA.4) states that these OPERABILITY requirements are to be relocated to the TRM. The staff finds this unacceptable. The discussion and justification used would also allow the OPERABILITY requirements for the Emergency Diesel Generator (EDG) Fuel Oil System in ITS 3.8 to be relocated to the TRM. The staff finds that CTS 4.7.1.2.3.c may be relocated to the TRM, based on the justifications in the staff Safety Evaluation issued with Amendments 71 for Braidwood and 79 for Byron dated 2/16/97 which relocated the similar EDG requirement (CTS 4.8.1.1.2.f.1)). Based on STS/ITS 3.8, CTS 3.7.1.2.b (day tank volume only) and CTS 4.7.1.2.3.a needs to be retained as SRs in ITS 3.7.5. In addition the fuel oil testing for CTS 4.7.1.2.3.b needs to be retained as an SR in ITS 3.7.5, however the details of the testing (ASTM Standards) may be relocated to ITS 5.5.13. **Comment:** Revise the CTS and ITS submittals accordingly and provide any additional discussion and justification to support these changes.

**ComEd Response:**

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**3.7.5-3**      DOC L.2  
                 JFD P.2  
                 JFD Bases B.2  
                 JFD Bases P.2  
                 JFD Bases P.8  
                 CTS 3.7.1.2 ACTION b.  
                 ITS LCO 3.7.5 Note  
                 ITS 3.7.5 APPLICABILITY  
                 ITS 3.7.5 ACTIONS  
                 ITS SR 3.7.5.3 Note  
                 ITS SR 3.7.5.4 Note and Associate Bases

**Comment:** See Item Number 3.7.4-1.

**ComEd Response:**

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**3.7.5-4**      JFD B.6  
                 JFD C.1  
                 ITS 3.7.5 Condition B

ITS 3.7.5 Condition B contains a C.1 change identifier; however, the justifications listing states that C.1 was not used. This appears to be an error since B.6 deletes this portion of the Condition statement. **Comment:** Revise the submittal to correct this discrepancy.

**ComEd Response:**

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**ITS 3.7.6, Condensate Storage Tank (CST)**

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**3.7.6-1**      JFD B.2  
                 JFD P.2  
                 JFD Bases B.2  
                 JFD Bases P.2  
                 ITS 3.7.6 APPLICABILITY  
                 ITS 3.7.6 RA B.2 and Associated Bases

**Comment:** See Item 3.7.4-1

**ComEd Response:**

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- 3.7.6-2**      JFD Bases P.1  
                 STS B.37.6 Bases - APPLICABLE SAFETY ANALYSES  
                 ITS B3.7.6 Bases - APPLICABLE SAFETY ANALYSES

ITS B3.7.6 Bases - APPLICABLE SAFETY ANALYSES deletes from the third paragraph, second sentence of STS B3.7.6 the following words: "since the Emergency Feedwater Actuation System would not detect a difference in pressure between the steam generators for this break location." This deletion is justified as an editorial change when it is a technical change. No justification provided for this change. **Comment:** Provide additional discussion and justification to explain this deletion or adopt the STS text.

**ComEd Response:**

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- 3.7.6-3**      JFD Bases P8  
                 STS B3.7.6 Base LCO  
                 ITS B3.7.6 Bases LCO

ITS B3.7.6 Bases - LCO deletes from STS B3.7.6 the entire second paragraph. However, the last sentence in this paragraph which states: "This basis is established in Reference 4 and exceeds the volume required by the accident analysis" appears to be applicable. **Comment:** Revise the submittal to adopt the STS wording, or provide additional discussion or justification to support its deletion.

**ComEd Response:**

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**ITS 3.7.7, Component Cooling Water (CC) System**

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- 3.7.7-1**      DOC A.12  
                 DOC M.4  
                 DOC LA.6  
                 JFD P.1  
                 JFD P.7  
                 JFD P.25  
                 JFD Bases P.15  
                 CTS 3.7.3  
                 CTS 3.7.3 ACTIONS  
                 STS 3.7.7 ACTIONS  
                 ITS LCO 3.7.7  
                 ITS 3.7.7 ACTIONS and Associated Bases

ITS B3.7.7 Bases - BACKGROUND states that the CC System is a shared system consisting of five pumps (four unit-specific and one common), three heat exchangers (two unit specific and one common), and two unit-specific surge tanks. There are no indications in the CTS or ITS associated Bases that this system is shared between the



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units and no indication of inter-unit dependence in the CTS. For example when the common heat exchanger is inoperable and regardless of which MODE each unit may be in, both units must simultaneously enter the appropriate ACTIONS. The STS did not consider shared unit operation of a system. ITS LCO 3.7.7 and its associated Bases seems to address shared system OPERABILITY, however, ITS 3.7.7 ACTIONS still are based on a per unit basis with no indication of the various system alignments or of inter-unit dependence. Based on the staff's review of the information submitted and the FSAR we believe that CTS 3.7.3 ACTIONS and the proposed ITS 3.7.7. ACTIONS do not seem to cover all potential system configurations, unit operational MODES and inoperabilities.

**Comment:** In order to fully understand the system and the proposed ITS, provide a complete listing of all possible system configurations. The listing for the plant (both units) is to include the following for each configuration.

- a. The pumps, heat exchangers and loops required to be OPERABLE.
- b. The operating MODE for each unit (both operating and one unit operating with the other unit shutdown).
- c. The ACTIONS to be taken with one or more components inoperable.

Revise ITS 3.7.7 ACTIONS based on the results of the above listing and unit inter-dependence. The items that may have to be considered in the revised ACTIONS are loss of function (LCO 3.0.3 entry), entering more than one ACTION currently (STS 1.3 Example 1.3-3 and correct placement of Notes. Note: A Note such as that proposed for ITS 3.7.10, ITS 3.7.11, and ITS 3.7.12 (see item Numbers 3.7.10-1, 3.7.11-1 and 3.7.12-1 respectively) may not be adequate to resolve this concern. Provide any additional discussions and justifications as appropriate.

**ComEd Response:**

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3.7.7-2      DOC A.40  
                 JFD P.17  
                 JFD Bases P.15  
                 CTS 4.7.3.3.b  
                 ITS SR 3.7.7.2 and Associated Bases

CTS 4.7.3.3.b requires verifying that the Essential Service Water (SX) system is available to each CC Heat Exchanger. The ITS adds this requirement at ITS SR 3.7.7.2 and modifies it to verify correct SX system valve position. ITS B3.7.7 Bases - SR 3.7.7.2 states that the SR verifies that the valves are in the correct position or can be aligned to the correct position. In light of the SX system serving a shared system as well as being a shared system with regards to CTS 3.7.4.1, the Bases for SR 3.7.7.2 should be modified to describe what is meant by "can be aligned to the correct position" with regard to the shared portions of the CC and SX Systems. **Comment:** Revise the Bases for SR 3.7.7.2 accordingly, and provide any additional discussion and justification as necessary.

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**ComEd Response:**

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**3.7.7-3**      DOC M.4  
                 JFD P.25  
                 CTS 3.7.3 ACTIONS - Insert 3.7-11A  
                 STS 3.7.7 RA A.1 Note  
                 ITS 3.7.7 ACTIONS Note

Justification M.4 states that a Note is added to CTS 3.7.3 ACTIONS consistent with NUREG-1431 STS 3.7.7 RA A.1 Note. The Note requires that the applicable Required Actions be entered if the residual Heat Removal (RHR) System is made inoperable by the inoperable CC system. While the addition of this type of Note is acceptable, M.4 states that this change represents an additional restriction on plant operation. The staff disagrees. The Note does not represent an additional restriction on plant operation. Since the CTS requires cascading with regards to inoperable support systems (CC system is a support system to the RHR system), the NOTE represents current requirements and therefore is an Administrative change. See Item Numbers 3.7.7-1 for Note location and 3.7.7-4 for concerns on Note wording). **Comment:** Provide additional discussion and justification for this Administrative change.

**ComEd Response:**

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**3.7.7-4**      DOC M.4  
                 JFD P.25  
                 CTS 3.7.3 ACTIONS - Insert 3.7.11A  
                 STS 3.7.7 RA A.1 Note  
                 ITS 3.7.7 ACTIONS Note

STS 3.7.7 RA A.1 Note states the following: "Enter applicable Conditions and Required Actions of LCO 3.4.6, 'RCS Loops-MODE 4', for residual heat removal loops made inoperable by CCW." ITS 3.7.7 moves the Note from RA A.1 to under ACTIONS (See Item Number 3.7.7-1 for concern on location) and changes the wording from "loops made inoperable" to "loops if made inoperable..." The staff finds this change to be generic and beyond the scope of review for this conversion. See Item Number 3.7.8-3. **Comment:** Delete this generic change.

**ComEd Response:**

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**3.7.7-5**      JFD P.7  
                 CTS 4.7.3.2.b  
                 STS SR 3.7.7.3  
                 ITS SR 3.7.7.3 and Associated Bases

CTS 4.7.3.2.b requires verifying that each CC pump starts automatically on a SI test signal at least once per 18 months. STS SR 3.7.7.3 performs the same surveillance on each pump. ITS SR 3.7.7.3 changes the STS wording from "each CC pump" to "required CC pump." This change is not in accordance with the CTS requirements of each pump and no justification is provided. In addition this change would allow one of the five CC pumps to be inoperable indefinitely. This is unacceptable to the staff. **Comment:** Revise ITS SR 3.7.7.3 to conform to CTS 4.7.3.2.b with regards to testing of all the CC pumps.

**ComEd Response:**

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**3.7.7-6**      JFD P.8  
                 STS SR 3.7.7.2  
                 ITS SR 3.7.7.3

ITS SR 3.7.7.3 shows that changes were made to this SR as a result of P.8. Justification P.8 deals with the deletion of STS SR 3.7.7.2 and no changes are shown in ITS SR 3.7.7.3 which relate to P.8. **Comment:** Correct this discrepancy.

**ComEd Response:**

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**ITS 3.7.8, Essential Service Water (SX) System**

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**3.7.8-1**      DOC A.14  
                 DOC M.6  
                 DOC LA.12  
                 JFD P.9  
                 JFD Bases P.18  
                 CTS 3.7.4.1  
                 CTS 3.7.4.1 APPLICABILITY  
                 ITS LCO 3.7.8.b and Associated Bases

CTS 3.7.4.1 and ITS LCO 3.7.8.b require the opposite unit SX train to be OPERABLE for the unit-specific support when the opposite unit is in MODES 5 or 6 or defueled. With the opposite unit in MODE 5 or 6, the SX system serves as a support system with no TS imposed requirements for opposite unit. Thus, its OPERABILITY is determined by the definition of OPERABLE and the system(s) it supports. It is unclear which opposite unit train is required to be OPERABLE for the unit specific support. For example, ITS 3.8.2 requires a Emergency Diesel Generator to be OPERABLE in MODES 5 and 6. By the definition of OPERABLE-OPERABILITY, the associated SX train would be required to be



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OPERABLE to support EDG operations. Would this opposite unit SX train also be considered as the opposite-unit SX train required to be OPERABLE per ITS LCO 3.7.8.b for the unit specific requirement or would the other opposite unit SX train be the one used. This may involve a reevaluation of the CTS/ITS APPLICABILITY (see Item Number 3.7.8-2). **Comment:** Provide additional discussion and justification for this concern. Revise the submittal as appropriate.

**ComEd Response:**

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3.7.8-2      DOC A.14  
              DOC LA.12  
              CTS 3.7.4.1  
              CTS 3.7.4.1 ACTION

In CTS 3.7.4.1 ACTION, LA.12 indicates a change has been made to refer to the Essential Service Water pump as the "SX trains" in two places; whereas the same change is justified in CTS 4.7.4.1 under A.14. A.14 is acceptable while LA.12 already applies to the relocation of CTS 3.7.4.1. Therefore, the CTS markup should be changed to be consistent. **Comment:** Revise the CTS markup and provide additional discussion and technical justification for this Administrative change.

**ComEd Response:**

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3.7.8-3      DOC A.15  
              DOC M.6  
              JFD Bases P.18  
              CTS 3.7.4 APPLICABILITY  
              CTS 3.7.4.1 APPLICABILITY  
              CTS 3.7.4.2 APPLICABILITY  
              STS 3.7.8 APPLICABILITY  
              ITS 3.7.8 APPLICABILITY and Associate Bases

CTS 3.7.4 APPLICABILITY specifies that the unit-specific SX System shall be OPERABLE in MODES 1, 2, 3, and 4. CTS 3.7.4.1 includes an APPLICABILITY for the opposite-unit SX system when the opposite-unit is shut down to support the requirements for the specific unit. CTS 3.7.4.2 APPLICABILITY specifies that the unit cross-tie shall be OPERABLE when either unit is in MODES 1, 2, 3 or 4. These three CTS show an inter-unit dependence as well as a sharing of the two units SX system. In converting from the CTS to the ITS the licensee used STS 3.7.8 APPLICABILITY. Thus, ITS 3.7.8 APPLICABILITY is only for MODES 1, 2, 3, and 4. The STS did not consider shared unit operation or inter-unit dependence of a system. Thus, ITS 3.7.8 APPLICABILITY is not equivalent and could lead to confusion since the ITS is presented as a combined TS. Insert B.3.7-2C in ITS B3.7.8 Bases - APPLICABILITY seems to describe the intent of the

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CTS. Thus, the following is proposed in order to make ITS 3.7.8 APPLICABILITY fit the situation, as claimed by M.6: "APPLICABILITY: MODES 1, 2, 3 and 4 for the Unit-Specific SX; and at all times for the Opposite-unit SX train unit-specific support." The change to the nomenclature of "opposite-unit" and "specific-unit" is accepted. SX performs many functions but foremost is to support the RHR heat exchangers. In a GL 91-13 search for alternate SX water sources, it is reasonable that opposite-unit requirements would apply at power in order have another SX train available to achieve a COLD SHUTDOWN, when required. This is the object of the requirements in the new proposed APPLICABILITY. See Item Number 3.7.8-1 for additional concerns in this area. **Comment:** Revise the CTS/ITS markup and provide additional discussion and technical justification for changes.

**ComEd Response:**

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3.7.8-4      DOC A.17  
                 JFD P.9  
                 JFD Bases P.18  
                 CTS 4.7.4.2.b  
                 ITS 3.7.8 and Associated Bases

CTS 4.7.4.2.b states that the provision of CTS 4.0.4 does not apply which allows entry into the specified MODE without CTS 4.7.4.2.a having been performed. ITS 3.7.8 does not contain this provision, but A.17 states that "precise requirements for performance of SRs are specified in the ITS such that exceptions to SR 3.0.4 are not necessary." These requirements can not be located in ITS 3.7.8 and associated Bases. **Comment:** Identify what these requirements are and where they are located to verify this justification. Provide additional discussion and technical justification for this Administrative change as necessary.

**ComEd Response:**

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3.7.8-5      DOC M.5  
                 JFD P.25  
                 CTS 3.7.4 ACTIONS Insert 3.7-12 A  
                 STS 3.7.8 RA A.1 Notes  
                 ITS 3.7.8 RA A.1 Notes

Justification M.5 states that two Notes are added to CTS 3.7.4 ACTIONS consistent with NUREG-1431 STS 3.7.8 RA A.1 Notes. The Notes require that the applicable Required Actions be entered if the Residual Heat Removal (RHR) System and Emergency Diesel Generator (EDG) are made inoperable by the inoperable SX System. While the addition of these Notes is acceptable, M.5 states that this change represents an additional restriction on plant operation. The staff disagrees. The Notes do not represent an additional

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restriction on plant operation. Since the CTS requires cascading with regards to inoperable support system (SX system is a support system to the RHR system and EDG), the Note represents current requirements and therefore is an Administrative change. See Item Number 3.7.8-6 for concerns on Note wording). **Comment:** Provide additional discussion and justification for this Administrative change.

**ComEd Response:**

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3.7.8-6      DOC M.5  
              JFD P.25  
              CTS 3.7.3 ACTIONS - Insert 3.7.12A  
              STS 3.7.8 RA A.1 Note  
              ITS 3.7.8 RA A.1 Note

STS 3.7.8 RA A.1 Notes state the following: "Enter applicable Conditions and Required Actions ...made inoperable by SWS. ITS 3.7.8 changes the wording from "made inoperable" to "if made inoperable..." The staff finds this change to be generic and beyond the scope of review for this conversion. See Item Number 3.7.7-5. **Comment:** Delete this generic change.

**ComEd Response:**

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3.7.8-7      DOC M.6  
              CTS 3.7.4  
              CTS 3.7.4.1 ACTIONS

Justification M.6 states the following: "ITS 3.7.8 Condition B allows a 7 day Completion Time while CTS would allow a total of 7 days and 37 hours." This was based on CTS 3.7.4 ACTIONS (37 hours) and 3.7.4.1 ACTIONS (7 days). The basis for the statement is incorrect. CTS 3.0 3 not CTS 3.7.4 is the correct action to Reference. **Comment:** Correct this discrepancy in justification M.6.

**ComEd Response:**

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3.7.8-8      DOC LA.12  
              JFD Bases P.18  
              CTS 3.7.4.2 ACTION a  
              ITS 3.7.8 ACTION B  
              ITS B 3.7.8 Bases - LCO

CTS 3.7.4.2 ACTION a states "With one or both of the crosstie valves(s) closed and not capable of being opened from the Main Control Room, within 7 days restore the valve(s)



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to available status or open the affected valve(s) and maintain the affected valve(s) open..." ITS 3.7.8 Condition B changes this to opposite-unit SX train inoperable". There is no discussion provided as to why an explicit ITS Required Action is not retained to "...or open the affected valve(s), and maintain the affected valve(s) open;..." This is not covered in LA.12 and there should be a justification for this change. ITS B3.7.8 Bases - LCO states that the flow path from the unit is established or capable or being established. This statement would suffice to meet the CTS ACTION requirement since it would allow the valve to remain inoperable indefinitely. **Comment:** Revise the CTS/ITS markup to include this CTS ACTION requirement and provide additional discussion and technical justification for these changes.

**ComEd Response:**

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3.7.8-9      DOC LA.13  
              JFD P.18  
              CTS 4.7.4.1.a.1  
              ITS SR 3.7.8.2 and Associated Bases

CTS 4.7.4.1.a.1 requires that the opposite-unit SX pump is capable of being manually started from the Main Control Room at least once per 24 hours. Justification LA.13 states that this requirement is relocated to the TRM, since these requirements consist of panel checks and verification that the pump can be started. This is not entirely true. ITS B 3.7.8.2 Bases SR 3.7.8.2 states that the pump shall be started from the main control room on a 31 day frequency. Thus, CTS 4.7.4.1.a.1 is included in ITS SR 3.7.8.2 but with a Less Restrictive frequency. **Comment:** Revise the CTS markup to reflect this Less Restrictive change, and provide additional discussion and justification for this Less Restrictive change.

**ComEd Response:**

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3.7.8-10     DOC LA.13  
              CTS 4.7.4.1.a.2  
              ITS SR 3.7.8.1  
              ITS SR 3.7.8.3 and Associated Bases

CTS 4.7.4.1.a.2 requires verifying that the SX system crosstie is established or capable of being established from the Main Control Room at least once per 24 hours. This requirement is shown as being relocate by LA.13. LA.13 only discusses the relocation of CTS 4.7.1.a.1 (SX pump availability), not the cross-tie. This requirement is encompassed by ITS SR 3.7.8.1 and ITS SR 3.7.8.3 but not specifically stated in the associated Bases. In addition, the following would be Less Restrictive (24 hours to 31/92 days). **Comment:** Revise the CTS/ITS markup to reflect this Less Restrictive change and provide additional discussion and justification for this Less Restrictive change.

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**ComEd Response:**

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3.7.8-11      DOC L.9  
                 CTS 3.7.4.1  
                 ITS 3.7.8 RA B.1

CTS 3.7.4.1 is associated with opposite-unit SX pump requirements. An exception to CTS 3.0.4 exists in CTS 3.7.4.2 for the SX crosstie, which provides the flow path for the opposite-unit pump. Therefore, the ITS 3.7.8 RA B.1 adds a Note which states "LCO 3.0.4 is not applicable". This is acceptable, however, the Note should additionally state that this is applicable "for the unit-specific SX System only", as is stated in the L.9. Since the Note as written could apply to both units when in this condition, which is not the intent. Also, is the last sentence of L.9 correct in referencing ACTION A, rather than ACTION B; or, is there more than one subject being addressed? It appears there should be a new ACTIONS Note to keep the opposite-unit SX train from being used for opposite-unit MODE changes while supporting the "remaining" unit-specific SX train. **Comment:** Provide the additional discussion and technical justification as required for this change.

**ComEd Response:**

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**ITS 3.7.9, Ultimate Heat Sink (UHS)**

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3.7.9-1      DOC A.1  
(Byron)      JFD Bases P.41  
                 CTS 3.7.5 ACTIONS  
                 ITS 3.7.9 ACTIONS and Associated Bases

The UHS is shared between Units 1 and 2. There are no indications in the CTS that this system is shared between the units and no indication of inter-unit dependence in the CTS. For example, when the system or a component in the system is inoperable and regardless of which MODE each unit may be in both units must simultaneously enter the appropriate ACTIONS. The STS did not consider shared unit operation of a system. Therefore, this ITS needs an ACTIONS Note to clarify that both units will enter the appropriate ACTIONS. The new ACTIONS Note should state: "These ACTIONS shall apply to both units simultaneously." This note will create the inter-unit dependence of the design. **Comment:** Revise the CTS/ITS markups and Bases to include this ACTIONS Note and provide the appropriate discussions and justifications.

**ComEd Response:**

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**3.7.9-2**      DOC A.1  
**(Byron)**      DOC A.34  
                 DOC A.35  
                 DOC A.48  
                 DOC LA.30  
                 DOC LA.31  
                 DOC L.22  
                 DOC L.23  
                 DOC L.24  
                 JFD P.21  
                 JFD Bases P.42  
                 CTS 3.7.5 ACTIONS

A number of CTS 3.7.5 ACTIONS have been overlooked and/or modified by the lack of a complete definition of OPERABILITY for the UHS. Some of these CTS requirements have no equivalent ITS 3.7.9 ACTION requirements, others have been proposed as ITS 3.7.9 SRs, and others have been included in plant specific ITS 3.7.9 ACTIONS. These changes have been proposed and justified as Administrative (A), Less Restrictive - Relocated (LA) and Less Restrictive (L) changes some of which have inadequate justifications, are beyond scope or review items, or constitute major changes in the operation of the UHS. The succeeding comments highlight the major concerns and problems found by the staff. See Item Numbers 3.7.9-3, 3.7.9-4, 3.7.9-5, 3.7.9-6, 3.7.9-10, 3.7.9-11 and 3.7.9-13.  
**Comment:** In light of the above and the succeeding comments (see Item Numbers 3.7.9-3, 3.7.9-4, 3.7.9-5, 3.7.9-6, 3.7.9-10, 3.7.9-11, and 3.7.9-13). Licensee should re-evaluate or rethink the CTS ACTIONS and the ITS ACTIONS to assure that all the CTS UHS OPERABILITY requirements have been addressed.

**ComEd Response:**

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**3.7.9-3**      DOC A.34  
**(Byron)**      JFD P.21  
                 JFD Bases P.42  
                 CTS 3.7.5 ACTION a.  
                 ITS 3.7.5 ACTION B and Associated Bases

CTS 3.7.5 ACTION a specifies that with a water level of less than 50% in either UHS cooling tower basin, restore the water level to at least 50% in each UHS cooling tower basin within 6 hours. The CTS markup changes "either" to "one" and "each" to "the" so that ITS 3.7.5 Condition B would read "One basin level < 50%" with a Required Action and Completion Time of "Restore basin level to  $\geq 50\%$  in "6 hours" respectively. This change has been characterized as an Administrative change (A.34). This change is not an administrative change but a More Restrictive change. As currently written CTS 3.7.5 ACTION a would allow one or both UHS cooling tower basins to be inoperable due to water level. In that situation, particularly with both basins out, 6 hours is allowed to



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restore both basins to OPERABLE status, before a shutdown is required. The ITS would require an immediate shutdown per ITS LCO 3.0.3. **Comment:** Provide a discussion and justification for this more Restrictive change.

**ComEd Response:**

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3.7.9-4      DOC A.35  
(Byron)      DOC LA.30  
              DOC L.22  
              DOC L.23  
              JFD P.21  
              JFD Bases P.42  
              CTS 3.7.5 ACTIONS c and d.1.  
              ITS 3.7.9 ACTION C and Associated Bases

CTS 3.7.5 ACTION C requires the restoration of the inoperable essential service water (SX)makeup pump in either 72 hours (ACTION c.1) or 7 or 14 days depending on the plant conditions specified in ACTION c.2. A.35 states that the restoration time of 72 hours is not included in the ITS 3.7.9 ACTION C, because ITS 3.0.2 allows restorative of the affected component within the time limits of the specified Required Action. L.22 states that the 7/14 day restoration time is based on the availability of other basin makeup sources. Thus, ITS 3.7.9 ACTION C is based on ITS. ACTION e.1 for an inoperable cooling tower basin switch (Automatic SX makeup pump start switch) which allows indefinite operation with an inoperable switch. This is unacceptable to the staff, however, the change in CTS 3.7.5 Action e from cooling tower basin switch to SX makeup pump is acceptable since the switch is a support component necessary for pump OPERABILITY. The current licensing basis requires pump restoration, which ITS 3.7.9 ACTION C does not require. In addition certain assumptions are made with regards to the alternate makeup sources which were not part of the initial staff review. Therefore, the change based on L.22 is considered to be a beyond scope of review item for this conversion. **Comment:** Revise ITS 3.7.9 ACTION C to include the restoration of the inoperable SX makeup pump to OPERABLE status in accordance with the CTS and provide additional discussions and justifications to support these required changes.

**ComEd Response:**

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3.7.9-5      DOC A.48  
(Byron)      DOC L.24  
              JFD P.21  
              JFD P.22  
              JFD Bases P.42  
              JFD Bases P.43  
              CTS 3.7.5 ACTION g

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ITS ACTION D  
ITS SR 3.7.9.1  
ITS SR 3.7.9.4 and Associated Bases

CTS LCO 3.7.5 ACTION g provides one hour to confirm river level and flow, if river level is below  $\leq$  670.6 feet MSL. ITS SR 3.7.9.4 confirms river level on a 24 hour basis, while SR 3.7.9.1 confirms river level and flow on a 12 hour basis if ITS SR 3.7.9.4 is not met. The justification (A.48) states that "If SR 3.7.9.4 is not met. ITS LCO 3.7.9 Condition D would be entered. Condition D requires verification of basin levels and operability of one makeup source within 1 hour. There is always the option to restore compliance with the LCO within the stated Completion Time. Therefore, within the 1 hour, ITS SR 3.7.9.1 could be performed and if the SR was met, Condition D exited." This is not true. If ITS SR 3.7.9.4 is not met, then ITS SR 3.7.9.1 must be met, which would require the immediate performance of this SR. It is conceivable at this time that ITS SR 3.0.3 could apply thus allowing 12 hours to perform this SR, before entering ITS 3.7.9 ACTION D. This is not the intent of the CTS or the ITS. The staff believes that CTS 3.7.5 ACTION g.1 should be retained as a separate ITS ACTION, ITS SR 3.7.9.1 be deleted and ITS ACTION D be modified to include an additional condition for Required Action and Associated Completion Time of the river level ITS ACTION not met. **Comment:** Revise the CTS/ITS submittal along the lines suggested and provide appropriate additional discussions and justifications.

**ComEd Response:**

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3.7.9-G      DOC LA.24  
(Byron)      DOC L.22  
              CTS 4.7.5 e.4  
              CTS 4.7.5.i

CTS 4.7.5.e.4 and CTS 4.7.5.i require starting the deep well pumps every 31 days and verifying the flow rate once per 18 months. The deep well pumps are not included in ITS 3.7.9 since they are considered as the backup to the SX makeup pumps. The CTS requirements are relocated to the TRM which is acceptable. However, the justification (LA.24) states that the pumps are not directly related to UHS OPERABILITY. This is incorrect. Even though this backup system is a Class II system (per L.22), it serves as a support system to the UHS, thus is directly related to UHS OPERABILITY in that if it is directly related to UHS OPERABILITY in that if it is inoperable ITS 3.7.9 ACTION E would have to be entered. **Comment:** Corrected this error in justification LA.24.

**ComEd Response:**

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**3.7.9-7**      DOC LA.25  
**(Byron)**      CTS 4.7.5.e.1  
                 CTS 4.7.5.f  
                 CTS 4.7.5.h

CTS 4.7.5.e.1, 4.7.5.f and 4.7.5.h detail requirements for the OPERABILITY of the diesel portions of the diesel driven SX makeup pumps. These requirements are not included in ITS 3.7.9 but have been relocated to TRM. While the diesel inspection requirement for CTS 4.7.5.h (see Item Number 3.7.9-8 for valve requirements) can be relocated (See Item Number 3.7.5-2), the other diesel requirements must be maintained in the ITS. See Item Number 3.7.5-2 for the reasons for retention. **Comment:** Revise the CTS and ITS submittals according the discussion in Item Number 3.7.5-2 and provide any additional discussion and justification to support these changes.

**Com Ed Response:**

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**3.7.9-8**      DOC LA.25  
**(Byron)**      CTS 4.7.5.h

CTS 4.7.5.h in addition to requiring an 18 month inspection of the SX pump diesel also requires "cycling each testable valve in the flow path through at least one complete cycle of full travel." The CTS markup shows this requirement as being relocated (LA.25), but no justification is provided to show that it can be relocated or to which licensee controlled document. Since other CTS LCOs which require valve cycling have included this requirement in the associated ITS SRs, this requirement should also be included in ITS 3.7.9. **Comment:** Revise the CTS/ITS markup to retain this valve cycling require and provide appropriate discussion and justification.

**ComEd Response:**

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**3.7.9-9**      DOC LA.28  
**(Byron)**      CTS 4.7.5.d  
                 ITS B3.7.9 Bases - SR 3.7.9.5

CTS 4.7.5.d details design attributes of how to perform the UHS fan surveillance (e.g., by starting from the control room). These items are to be relocated to the TRM and to the ITS Bases. The detail on starting the fan from the control room for this surveillance has not been relocated to ITS B 3.7.9 Bases SR 3.7.9.5 as stated above. **Comment:** Include this item in the discussion of ITS B 3.7.9 Bases - SR 3.7.9.5 or provide additional discussion and justification to show why it should not be relocated there.

**ComEd Response:**



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3.7.9-10      DOC LA.30  
(Byron)      DOC L.24  
              JFD P.21  
              JFD Bases P.42  
              CTS 3.7.5 ACTION e.2  
              CTS 3.7.5 ACTION g.2  
              ITS 3.7.9 ACTION D and Associated Bases

CTS 3.7.5 does not include specific ACTIONS for the case of two inoperable SX makeup pumps except for inoperability due to river water level and cooling tower basin switches. Therefore, CTS LCO 3.0.3 would apply for all other SX makeup pump inoperabilities. ITS 3.7.9 ACTION D tries to combine the modified CTS 3.7.5 ACTIONS e.2 and g.2 for two SX makeup pumps inoperable. LA.30 changes the words in CTS 3.7.5 ACTION e.2 from "cooling tower level basin switches" to SX makeup pumps." While this may be an acceptable change for one switch/one pump inoperable, it may not be for two switches/two pumps inoperable. With 2 cooling tower level basin switches inoperable, the Required Actions of CTS 3.7.5 ACTION e.2 takes into account the manual start/stop capabilities of the SX makeup pumps, and the alternate makeup source. This particular aspect of CTS 3.7.5 Action e.2 has not been addressed in either LA.30 or L.24. See Item Numbers 3.7.9-13. **Comment:** Provide additional discussion and justification on this aspect of CTS 3.7.5 ACTION e.2 and its effect on the conversion to ITS 3.7.9 ACTION D. See Item Number 3.7.9-13.

**ComEd Response:**

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3.7.9-11      DOC LA.31  
(Byron)      JFD P.21  
              JFD Bases P.41  
              JFD Bases P.42  
              CTS 3.7.5.f  
              CTS 3.7.5.h  
              CTS 3.7.5 ACTION f  
              CTS 3.7.5 ACTION h  
              ITS 3.7.9 ACTION D and Associated Bases

CTS 3.7.5.f and 3.7.5.h specify that UHS OPERABILITY is dependent on the National Weather Service (NWS) forecasts of Rock River flood level and tornados respectively. CTS 3.7.5 ACTIONS f and h are the remedial actions that are taken when the NWS forecasts high river level (> 702 ft.) and tornados respectively. While the staff agrees in part that these anticipatory actions can be relocated from the CTS to licensee controlled documents, the staff does believe that these anticipatory actions should be relocated to the plant emergency procedures or operating procedures due to the safety significance of the conditions. However, it is also the staff's position that CTS 3.7.5 ACTIONS f and h

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be retained in some form in the ITS. The reason for this is even though both ACTIONS are anticipatory actions to be taken prior to the occurrence of the conditions or event, both ACTIONS also apply after the event has occurred and exiting the ACTIONS will depend on when the event ends. Even though both ACTIONS deal with two SX makeup pumps inoperable (CTS 3.7.5 ACTION f river water level > 702 ft and CTS 3.7.5 ACTION h river water level < 664.7 ft) the CTS ACTIONS are either More Restrictive or Less Restrictive than ITS ACTION D. **Comment:** Revise the CTS/ITS markup to include CTS 3.7.5 ACTIONS f and h in ITS 3.7.9 and provide the appropriate discussions and justifications for the proposed changes.

**ComEd Response:**

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3.7.9-12      DOC L.5  
(Byron)      JFD P.30  
                 JFD Bases P.43  
                 CTS 4.7.5.e.2  
                 ITS SR 3.7.9.7

CTS 4.7.5.e.2 verifies every 31 days the starting of the diesel from ambient conditions on a low basin level test signal. ITS SR 3.7.9.7 has changed this Frequency to be consistent with the IST Program. The justification for this change is unacceptable; consistency with the NUREG is not a justification for changing a Frequency. **Comment:** Revise the submittal to provide the additional discussion and technical justification for this Less Restrictive change.

**ComEd Response:**

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3.7.9-13      DOC L.24  
(Byron)      JFD P.30  
                 JFD Bases P.43  
                 CTS 3.7.5 ACTION e.2  
                 CTS 3.7.5 ACTION g.2  
                 ITS 3.7.9 ACTION D and Associated Bases

CTS 3.7.5 ACTIONS e.2 and g.2 are modified by justification L.24 and combined into ITS 3.7.9 ACTION D. L.24 states that the modification places the plant in a condition where the safety function assumed in the design basis analysis can be satisfied and is consistent with CTS 3.7.5 ACTIONS e.2 and g.2. This is not true. See Item 3.7.9-10 for one aspect of this problem. CTS 3.7.9 ACTION g.2.a requires that both deep well pumps be verified OPERABLE within 1 hour not one pump in one hour and the other in 72 hours as proposed in ITS 3.7.9 ACTION D. CTS 3.7.5 ACTION g.2.b specifies the requirements with one deep well pump inoperable. Implicit in this ACTION is that the cooling tower basin levels could be below 82%. Thus 72 hours would be allowed to not only restore

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the pump to OPERABLE status but also the basin water level. ITS 3.7.5 ACTION D does not allow this, ITS 3.7.5 ACTION E, immediate shutdown, would have to be entered. In addition ITS 3.7.5 ACTION D has a Note which states that "LCO 3.0.4 is not applicable." This note applies to all of ACTION D. In the CTS the provisions of CTS LCO 3.0.4 only apply if both deep well pumps are OPERABLE, the ITS would allow this to apply if one deep well pump is inoperable. Based on the above as well as other items, ITS 3.7.5 ACTION D needs major rework. See Item Number 3.7.9-11. **Comment:** Revise CTS/ITS markup to correctly reflect the design and current licensing basis for two SX makeup pumps inoperable and provide the appropriate additional discussions and justifications to support the proposed changes.

**ComEd Response:**

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3.7.9-14      DOC L.24  
(Byron)      CTS 3.7.5 ACTION g.2).c)

CTS 3.7.5 ACTION g.2).c) requires the plant to be placed "in at least HOT STANDBY within the next 6 hours and at least HOT SHUTDOWN within the following 6 hours and at least COLD SHUTDOWN within the subsequent 24 hours. The CTS markup deletes the words "and at least HOT SHUTDOWN within the following 6 hours." The deletion is designated L.24. Justification L.24 does not address this deletion. **Comment:** Provide a discussion and justification for this deletion.

**ComEd Response:**

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3.7.9-15      JFD Bases B.20  
(Byron)      CTS 3.7.5.d  
                 CTS 4.7.5.b  
                 ITS SR 3.7.9.3 and Associated Bases

CTS 3.7.5.d and 4.7.5.b specifies the UHS temperature limits which are to be taken at the discharge of the SX pump. ITS 3.7.9.3 and its Associated Bases specifies the temperature limits, but does not specify the location (SX pump discharge). This should be reflected in the Bases discussion for ITS SR 3.7.9.3 since it is a plant-specific detail. **Comment:** Revise the CTS/ITS markup to show the relocation from the CTS and the inclusion in the ITS Bases of this detail and provide the appropriate discussions and justifications for this Less Restrictive change.

**ComEd Response:**

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**3.7.9-16**      **DOC A.1**  
**(Braidwood)**   **JFD Bases P.19**  
                 **CTS 3.7.5 ACTIONS**  
                 **ITS 3.7.9 ACTIONS and Associated Bases**

The UHS is shared between Units 1 and 2. There are no indications in the CTS that this system is shared between the units and no indication of inter-unit dependence in the CTS. For example, when the system is inoperable and regardless of which MODE each unit may be in both units must simultaneously enter the appropriate ACTIONS. The STS did not consider shared unit operation of a system. Therefore, CTS 3.7.5 needs an Actions Note to clarify that both units will enter the appropriate ACTION. The new ACTIONS Note should state: "These ACTIONS shall apply to both units simultaneously." This Note will create the inter-unit dependence of the design. **Comment:** Revise the CTS/ITS markups and Bases to include this ACTIONS Note and provide the appropriate discussions and justifications.

**ComEd Response:**

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**3.7.9-17**      **DOC LA.14**  
**(Braidwood)**   **CTS 4.7.5.2**  
                 **ITS 3.7.9**

CTS 4.7.5.2 requires the performance of a hydrographic survey every 18 months to verify no degradation of the UHS. ITS 3.7.9 does not contain this plant specific surveillance. The stated justification (LA.14) for relocating this requirement is based upon the STS does not contain a similar requirement or this level of detail. This is technically inadequate. While the staff agrees that CTS 4.7.5.2.b (UHS slope degradation) can be relocated to the TRM, it does not agree that CTS 4.7.5.2.a can be relocated. While slope degradation is important to UHS OPERABILITY, it is a subjective verification and is less critical than maintaining the necessary depth to assure an adequate water supply for the UHS. The depth verification (CTS 4.7.5.2.a) is analogous to maintaining a specific UHS water level (CTS 4.7.5.1 and ITS SR 3.7.9.1). Therefore the staff requires this requirement to be retained. **Comment:** Revise the CTS/ITS markup to retain CTS 4.7.5.2.a and provide additional discussion and justifications to support the retention of CTS 4.7.5.2.a and the relocation of CTS 4.7.5.2.b.

**ComEd Response:**

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**ITS 3.7.10, Control Room Ventilation (VC) Filtration System**

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**3.7.10-1**      **DOC A.1**  
                  **JFD Bases P.21**  
                  **CTS 3.7.6 ACTIONS**  
                  **ITS 3.7.10 ACTIONS and Associated Bases**

The Control Room Ventilation System is two independent trains which serve one control room envelope that is shared between Units 1 and 2. There are no indications in the CTS that this system is shared between the units and there is not indication of inter-unit dependence in the CTS. For example, when one train is inoperable and regardless of which MODE each unit may be in, both units must simultaneously enter the appropriate ACTIONS. The STS did not consider shared unit operation of a system therefore, the ITS needs an ACTIONS Note to clarify that both units will enter the appropriate ACTIONS. The new ACTIONS Note should state: "These ACTIONS shall apply to both units simultaneously." This Note will create the inter-unit dependence of the design.  
**Comment:** Revise the CTS/ITS markups and Bases to include this ACTIONS Note and provide the appropriate discussions and justifications.

**ComEd Response:**

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**3.7.10-2**      **DOC LA.17**  
                  **CTS 4.7.6.b**  
                  **ITS B3.7.10 Bases**

LA.17 specifies that the details of system OPERABILITY, design and methods of performing SRs are relocated to the ITS B3.7.10 Bases. CTS 4.7.6.b specifies that the VC Filtration System be tested "at least once per 31 days on a STAGGERED TEST BASIS by initiating from the control room... and verifying that the system operates for at least 10 continuous hours...." the "by initiating from the control room" is to be relocated by LA.17 to ITS B3.7.10 Bases. This detail has not been relocated to ITS B 3.7.10 Bases.  
**Comment:** Revise ITS B.3.7.10 Bases to include this detail.

**ComEd Response:**

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**3.7.10-3** JFD C.9  
STS 3.7.10 APPLICABILITY  
ITS 3.7.10 APPLICABILITY

ITS 3.7.10 APPLICABILITY modifies STS 3.7.10 APPLICABILITY to place semicolons between MODES and specified conditions and to use "and"s between APPLICABILITY specified conditions. This generic change is described in C.9 as WOG-81. It is the staff's understanding that WOG-81 has been rejected by the Owners Group. **Comment:** Delete this generic change.

**ComEd Response:**

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**3.7.10-4** JFD Bases P.21  
STS B3.7.10 Bases - BACKGROUND  
ITS B3.7.10 Bases - BACKGROUND

STS B3.7.10 Bases - BACKGROUND, the last sentence of the eighth paragraph states "The CREFS is designed in accordance with Seismic Category requirements." This sentence has not been adopted in the ITS. Bases P.21 does not explain this deletion. **Comment:** Provide additional discussion and justification to explain why this STS text was not adopted.

**ComEd Response:**

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**ITS 3.7.11, Control Room Ventilation (VC) Temperature Control System**

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**3.7.11-1** DOC A.1  
JFD Bases P.21  
CTS 3.7.6 ACTIONS  
ITS 3.7.11 ACTIONS and Associated Bases

**Comment:** See Item Number 3.7.10-1

**ComEd Response:**

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**3.7.11-2** JFD C.9  
STS 3.7.11 APPLICABILITY  
ITS 3.7.11 APPLICABILITY

ITS 3.7.11 APPLICABILITY modifies STS 3.7.11 APPLICABILITY in accordance with WOG-81. See Item Number 3.7.10-3. **Comment:** See Item Number 3.7.10-3.

**ComEd Response:**



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- 3.7.11-3** JFD Bases P.21  
STS B3.7.11 Bases - APPLICABLE SAFETY ANALYSES  
ITS B3.7.11 Bases APPLICABLE SAFETY ANALYSES

The fourth sentence of the second paragraph in STS B3.7.11 Bases - APPLICABLE SAFETY ANALYSES states "The CREATCS is designed in accordance with Seismic Category I requirements." This sentence has not been adopted in the ITS. Bases P.21 does not explain this omission. **Comment:** Provide additional discussion to explain why this STS text was not adopted.

**ComEd Response:**

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**ITS 3.7.12, Nonaccessible Area Exhaust Filter Plenum Ventilation System**

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- 3.7.12-1** CTS A.1  
JFD Bases P.28  
CTS 3.7.7 ACTIONS  
ITS 3.7.12 ACTIONS and Associated Bases

According to ITS B3.7.12 Bases - BACKGROUND the description of the Nonaccessible Area Exhaust Filter Plenum Ventilation System, states that this system is a subsystem of the common Auxiliary Building Heating Ventilation and Air Conditioning System, and is also a shared system between the Units 1 and 2. There are no indications in the CTS that this system is shared between the Units and is no indication of inter-unit dependence in the CTS. The STS did not consider shared unit operation of a system and therefore, the ITS needs to be modified to take this into account. Insufficient information on system design and operational alignments has been provided to determine if a Note similar to that proposed for ITS 3.7.10 ACTIONS and ITS 3.7.11 ACTIONS (See Item Numbers 3.7.10-1 and 3.7.11-1) is sufficient to correct the concern or a total revision of the ACTION statements is necessary. **Comment:** Revise the submittal to account for the inter-unit dependence of the shared Nonaccessible Area Exhaust Filter Plenum Ventilation System and provide additional discussion and justifications, as appropriate.

**ComEd Response:**

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**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

3.7.12-2      DOC A.44  
                  DOC A.45  
                  DOC LA.38  
                  JFD P.12  
                  JFD P.13  
                  JFD Bases P.28  
                  CTS 3.7.7  
                  ITS LCO 3.7.12  
                  ITS B3.7.12 Bases - LCO

CTS 3.7.7 has been modified by a TS amendment request dated August 23, 1996. This CTS change is under review by the staff, and is expected to be issued in October, 1997. This beyond scope of review item will be evaluated for inclusion in the conversion upon issuance of the amendment in October, 1997. **Comment:** Review of this beyond scope of review item is pending resolution of the August 23, 1996 TS amendment request.

**ComEd Response:**

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**ITS 3.7.13, Fuel Handling Building Exhaust Filter Plenum (FHB) Ventilation System**

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3.7.13-1      DOC M.9  
                  JFD P.16  
                  JFD Bases P.38  
                  CTS 4.9.4.2  
                  ITS SR 3.7.13.3 Note and Associated Bases

A Note has been added to CTS 4.9.4.2 to state when this SR shall be performed. It is acceptable to add this new Note; however, in order to limit its performance when the equipment hatch is not intact during refueling, then the ITS B3.7.13 Bases - SR 3.7.13.3 should state that the SR is only required during movement of irradiated fuel assemblies (whether inside containment or inside the fuel handling building) or Core alternations with the equipment hatch not intact. This change will bring the Bases discussion into conformance with the interpretation of this Note as stated in M.9, P.16, and Bases P.38. **Comment:** Revise the submittal and CTS markup and provide additional discussion and technical justification for this change.

**ComEd Response:**

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**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

**3.7.13-2**      DOC M.9  
                 JFD Bases P.38  
                 CTS 3.9.4  
                 CTS 4.9.4.2  
                 ITS B3.7.13 Bases - APPLICABILITY

The CTS markup for CTS 4.9.4.2 changes the words "with the equipment hatch removed" to "with the equipment hatch not intact." While this change is considered acceptable, the justification provided in M.9 and the description provided in ITS B3.7.13 Bases - APPLICABILITY defining "not intact" as including both personnel air lock doors opened is unacceptable. CTS 3.9.4 specifies containment OPERABILITY during CORE ALTERNATIONS and movement of irradiated fuel in containment. Under these conditions CTS 3.9.4 requires that the personnel hatch (air lock) and the personnel emergency exit hatch (air lock) have at least one door closed. CTS 4.9.4.2 which verifies that the FHB Ventilation System can maintain a negative pressure in the fuel building with the equipment hatch removed (not intact) would require this SR be performed under the conditions of the CTS 3.9.4, that is the air locks closed by a minimum of one door. The proposed definition of not intact (both air lock doors open) is not in accordance with current licencing basis as described in CTS 3/4.9.4, and would require a NRC technical staff review of this change. This would constitute a beyond scope of review item for this conversion. **Comment:** Delete from the definition of equipment hatch not intact the words describing both personnel air lock doors open from M.9 and ITS B3.7.13 Bases - APPLICABILITY.

**ComEd Response:**

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**3.7.13-3**      DOC M.12  
                 JFD B.18  
                 JFD P.16  
                 JFD Bases P.38  
                 CTS 4.9.4.2  
                 CTS 4.9.12.d.3)  
                 ITS SR 3.7.13.3 and Associated Bases  
                 ITS SR 3.7.13.5 and Associated Bases

Justification M.12 states the following: "ITS SR 3.7.13.5 adds a flow rate requirement to CTS 4.9.12.d.3). This SR verifies the ability of the FHB Ventilation System to maintain the fuel building at a negative pressure. If the system were to run at a flow rate greater than design, the negative pressure may be met, but the larger flow rate could be indicative of system degradation." CTS 4.9.4.2 and ITS SR 3.7.13.3 perform the same test, but the enclosure now is the fuel building and containment. No flow rate requirement is included in ITS SR 3.7.13.3. Based on M.12 above, a flow rate requirement should also be provided for ITS SR 3.7.13.3. **Comment:** Revise ITS SR 3.7.13.3 to include a flow



**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

rate requirement or provide a discussion and justification based on system design or operational constraints to show that a flow rate requirement is not needed in this case.

**ComEd Response:**

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**3.7.13-4**      DOC L.16  
                 CTS 3.9.4 ACTIONS  
                 CTS 3.9.12 ACTIONS  
                 ITS 3.7.13 ACTIONS

The CTS markup of CTS 3.9.4 ACTIONS adds ITS ACTIONS A, B, and C, and classifies this modification as a Less Restrictive change (L.16). While the addition of ITS ACTION A is considered to be a Less Restrictive change, the additions of ITS ACTIONS B and C are considered as an administrative change. Since the CTS requires cascading, the inoperability of the FHiB Ventilation System for CTS 3.9.4 would require entry into CTS 3.9.12 ACTIONS which are ITS ACTIONS B and C. **Comment:** Revise the markup for CTS 3.9.4 ACTIONS to show that ITS ACTIONS B and C are administrative changes rather than Less Restrictive changes. Provide additional discussion and justifications for this Administrative change.

**ComEd Response:**

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**3.7.13-5**      JFD C.2  
                 JFD Bases C.3  
                 CTS 3.9.12 ACTION c  
                 STS 3.7.13 ACTIONS  
                 ITS 3.7.13 ACTIONS Note and Associated Bases

TSTF-36 Revision 2 modifies STS 3.7.13 ACTIONS by adding a Note which states that "LCO 3.0.3 is not applicable." The staff has not yet reviewed and approved TSTF 36, but will recommend that this change be modified to locate the Note above STS 3.7.13 RA C.1 and RA D.1 to be consistent with the Standby Gas Treatment System STS in BWR/4 (NUREG 1433) and BWR/6 (NUREG 1434), and as being the more appropriate place for this Note. **Comment:** Revise the CTS/ITS markups to reflect this proposed change to TSTF-36 and provide additional justification and discussion for this change.

**ComEd Response:**

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**Byron & Braidwood Improved Technical Specifications Review Comments  
Section 3.7, Plant Systems**

3.7.13-6      JFD C.9  
                 STS 3.7.13 APPLICABILITY  
                 ITS 3.7.13 APPLICABILITY

ITS 3.7.13 APPLICABILITY modifies STS 3.7.13 APPLICABILITY in accordance with WOG-81. See Item Number 3.7.10-3. **Comment:** See Item Number 3.7.10-3.

**ComEd Response:**

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**ITS 3.7.14, Fuel Storage Pool Water Level**

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3.7.14-1      DOC A.26  
                 JFD P.4  
                 JFD Bases C.9  
                 JFD Bases P.31  
                 CTS 3/4.9.11  
                 ITS 3.7.14

By letter dated November 5, 1996, ComEd Requested a change to CTS LCO 3.9.11, CTS 5.6.1.1 and CTS 6.9.1.10. CTS 3/4.9.11 was marked up to reflect this 11/5/96 request. This request has been approved by the staff, but is only a temporary change which expires in December, 1997. The permanent TS changes have been submitted for staff review and approval in an amendment change package dated June 30, 1997. Thus, the changes associated with this specification and their acceptance is beyond scope of review item for this conversion. **Comment:** The review of the conversion of CTS 3/4.9.11 to ITS 3.7.14 is delayed pending staff's approval of the licensee's 6/30/97 TS change request and resubmittal by the licensee of the CTS/ITS markups for ITS 3.7.14.

**ComEd Response:**

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**ITS 3.7.15, Fuel Storage Pool Boron Concentration**

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3.7.15-1      DOC A.26  
                 JFD P.4  
                 JFD Bases C.9  
                 JFD Bases P.31  
                 CTS 3/4.9.11  
                 ITS 3.7.15

See Item Number 3.7.14-1. **Comment:** The review of the conversion of CTS 3/4.9.11 to ITS 3.7.15 is delayed pending staff's approval of the licensee's 6/30/97 TS change request and submittal by the licensee of the CTS/ITS markups for ITS 3.7.15.

**ComEd Response:**



**Byron & Braidwood Improved Technical Specifications Review Comments**  
**Section 3.7, Plant Systems**

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**ITS 3.7.16, Spent Fuel Assembly Storage**

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3.7.16-1      JFD P.4  
                 JFD Bases C.9  
                 JFD Bases P.31  
                 ITS 3.7.16

The CTS markup does not show anything for ITS 3.7.16. The justifications provided in the ITS markup are P.4 and Bases P.31. Resolution of ITS 3.7.16 will depend on the resolutions of Item Numbers 3.7.14-1 and 3.7.15-1. **Comment:** The review of the ITS 3.7.16 is delayed pending staff's approval of the licensee's 6/30/97 TS change request and resubmittal by the licensee of the ITS markup of ITS 3.7.16.

**ComEd Response:**

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**ITS 3.7.17, Secondary Specific Activity**

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3.7.17-1      JFD Base P.20  
                 ITS B3.7.17 Bases - BACKGROUND

The third paragraph, first sentence, references the primary coolant specific activity limits of LCO 3.4.16. The stating of the 1 microcurie per gram limit has been omitted because the limit is different between Braidwood and Byron. This is a legitimate difference and its should be stated clearly rather than disguised by this alternative editorial wording.

**Comment:** Revise the Bases to include the specific activity values for each facility.

**ComEd Response:**

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**CTS 3/4.7.8, Snubbers**

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3/4.7.8-1      DOC LA.39  
                 CTS 3/4.7.8

CTS 3/4.7.8 is being totally relocated out of the TS to the TRM. The justification used for this is LA.39. The LA justifications are to be used to relocate specific requirements and detailed information from individual specifications. The relocation of entire specifications such as 3/4.7.8 are to be justified using the Relocated (R.x) designation. **Comment:** Revise the CTS markup to show that this change is a relocated item and provide the appropriate discussion and justification for this relocated CTS.

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

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**3.9-01**      DOC LA6  
                 CTS 3/4.9.3, Decay Time

Byron/Braidwood characterized this change as less restrictive generic, LA. This specification is relocated based on application of the 10 CFR 50.36. **Comment:** Revise the LA.6 DOC to a Relocated DOC.

**ComEd Response:**

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**3.9.1-01**      Bases discussion for ITS 3.9.1 Applicable Safety Analyses, page B 3.9-2

In the second paragraph of the Applicable Safety Analyses, it has been proposed to delete the term "margin of safety" and replace it with the defined term "Shutdown Margin". The Shutdown Margin definition addresses stuck rod worth which is not relevant during refueling operations. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.1-02**      Bases discussion for ITS 3.9.1 Actions, page B 3.9-3

The first sentence of the first paragraph of the Actions section of the STS has not been adopted in the ITS. This sentence states, "Continuation of Core Alterations or positive reactivity additions (including actions to reduce boron concentration) is contingent upon maintaining the unit in compliance with the LCO." **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.1-03**      Bases discussion for ITS 3.9.1 Actions, page B 3.9-3

In the middle of the first paragraph of the Actions section of the STS the term "all operations involving" has not been adopted in the ITS. Instead, an insert has been proposed that states, "an inadvertent criticality may occur due to an incorrect fuel loading. To minimize the potential of an inadvertent criticality resulting from a loading error." This appears to overlook the possibility of an inadvertent criticality as a result of a reduced boron concentration. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

**ComEd Response:**

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**3.9.1-04**      Bases discussion for ITS 3.9.1 Actions, page B 3.9-3

An insert has been added to the end of the second paragraph of the Actions section. The intention of the insert is to exclude "normal heatup/cooldown of the coolant volume for the purpose of system temperature control" from Required Action A.2 to suspend positive reactivity additions. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS. This issue should be brought to the Tech Spec Task Force for future action.

**ComEd Response:**

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**3.9.1-05**      Bases discussion for ITS SR 3.9.1.1, page B 3.9-4

In the STS, the last sentence of the first paragraph states, "The boron concentration of the coolant in each volume is determined periodically by chemical analysis." The ITS has not adopted the term "in each volume". **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.1-06**      DOC A9  
                  CTS 3.9.1

The ITS adds the refueling cavity to the list of specified volumes that require the boron concentration limits of TS to be met. **Comment:** Based on the discussion provided in A9 the change is not justifiable as an administrative change. Provide additional justification to support the administrative change category.

**ComEd Response:**

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**3.9.1-07**      DOC LA1  
                  CTS 3.9.1

The CTS markup shows the application of the LA1 DOC to LCO 3.9.1.b(2) which is note \*\* that is deleted by DOC A3. **Comment:** Revise the CTS markup to correct the applications of LA1 and A3.



**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

**ComEd Response:**

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**3.9.1-08**      JFD P1  
                 CTS LCO 3.9.1

The P1 DOC adds the article "the" to SR 3.9.1.1. **Comment:** Revise ITS SR 3.9.1.1 to adopt the STS. (This and other sentence structure changes could be made throughout the STS and the industry declined to adopt and "English" language format in favor of specifications that contained the required information with a "human factored" format.

**ComEd Response:**

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**3.9.2-01**      ITS 3.9.2 Actions Note

ITS 3.9.2 contains an Actions Note which states, "Separate Condition entry is allowed for each unborated water source isolation valve." **Comment:** The submittal has neither discussed nor justified using this note. Revise the submittal to provide the justification for this note.

**ComEd Response:**

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**3.9.2-02**      Bases discussion for ITS 3.9.2 LCO, page B 3.9-5

The proposed insert for this section reads, "This LCO includes valves from the RWST whenever concentration of the RWST falls below specified limits. Acceptable isolation in the closed position of unborated water source isolation valves is provided by mechanical stops, removal of air, or removal of electrical power." The revision that follows is a proposed alternate. "This LCO includes valves associated with the RWST whenever the boron concentration of the RWST falls below specified limits. The unborated water source isolation valves are acceptably secured in the closed position by utilizing mechanical stops, removing air, or removing electrical power as appropriate." **Comment:** Revise the submittal to incorporate the recommended insert material.

**ComEd Response:**

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**3.9.2-03**      Bases discussion for ITS SR 3.9.2.1, page B 3.9-7

In the STS the first three sentences of the Bases discussion for SR 3.9.2.1 provide general background about the surveillance. This material has not been adopted in the Bases



**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

discussion for corresponding ITS 3.9.2. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.3-01**     DOC L10  
                 CTS 3/4.9.2

CTS 3/4.9.2 establishes the requirements for the nuclear instrumentation in Mode 6. The LCO requires in part audible indication in the containment and the control room. It has been proposed to delete this requirement because there is no design requirement for the audible alarm and the ITS requirement to isolate all unborated water sources in Mode 6 (ITS 3.9.2) provides adequate assurance that a reactivity event will not occur. **Comment:** Insufficient justification has been provided to support this proposed change. Revise the submittal to move this requirement to the ITS Bases, consistent with NUREG-1431.

**ComEd Response:**

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**3.9.3-02**     Bases discussion for ITS SR 3.9.3.2, page B 3.9-10

The STS Bases states that the reason that the Channel Calibration is performed with an 18 month frequency is that this surveillance needs to be performed under the conditions that apply during a plant outage. This information has not been adopted in the ITS. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.4-01**     DOC A6  
                 JFD P2  
                 CTS 3.9.4.a  
                 ITS LCO 3.9.4 Note

CTS LCO 3.9.4.a allows removal of the equipment hatch pursuant to the successful performance of the Surveillance Requirement to verify the Operability of the fuel handling building exhaust plenums. This has been reformatted in the form of an LCO note for corresponding ITS 3.9.4. This note states that Item a of the LCO is only required when the Fuel Handling Building Exhaust Filter Plenum Ventilation System is not in compliance with ITS LCO 3.7.13. However, the Applicability for ITS 3.9.4 and ITS 3.7.13 are not the same. The note should be revised to state that Item a of the LCO is only required when

**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

the Fuel Handling Building Exhaust Filter Plenum Ventilation System is not Operable.  
**Comment:** Revise the submittal to specify system Operability status rather than compliance with LCO 3.7.13.

**ComEd Response:**

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**3.9.4-02**      JFD P17  
Bases discussion for ITS SR 3.9.4.2, page B 3.9-15

In the STS the last part of the paragraph describes other Surveillance Requirements in other LCOs that demonstrate the Operability of the containment purge valves and their associated actuation instrumentation. This information has not been adopted in the ITS.  
**Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.4-03**      DOC L2  
CTS 4.9.4.1  
CTS 4.9.9

DOC L2 states the CTS has been revised to relax the surveillance frequency from 7 days to 18 months. **Comment:** DOC L.2 justifies the proposed changes to CTS 4.9.9 test frequencies; however, DOC L.2 does not provide appropriate discussion for CTS 4.9.4.1 changes identified as L2 and the CTS 4.9.4.1 markup does not reflect the proposed ITS. Revise the CTS markup and provide DOC discussion to address each proposed CTS change.

**ComEd Response:**

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**3.9.4-04**      DOC M8  
JFD P3  
ITS SR 4.9.4.3

DOC M8 justifies adding purge valve isolation time testing in accordance with IST frequencies. **Comment:** The proposed SR represents a generic change to the STS. Typically, valve isolation testing is performed as part of the system operability requirements. Explain why this proposed SR does not duplicate the testing requirements of ITS SR 3.6.3.5.



Byron F. Fairwood Improved TS Review Comments  
Section 3.9, Refueling

ComEd Response:

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3.9.4-05      DOC A11  
                 ITS LCO 3.9.4

DOC A11 states that the requirements of CTS 3.9.9, "Containment Purge Isolation System" are retained in the presentation of ITS LCO 3.9.4.c which requires an operable Containment Purge Isolation System. **Comment:** The proposed ITS LCO 3.9.4.c requires the "Containment Ventilation (emphasis added) System to be operable. Provide a DOC for the deletion of Containment Purge Isolation System operability requirements during core alterations or movement of irradiated fuel in containment.

ComEd Response:

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3.9.4-06      JFD C4  
                 ITS 3.9.4 Applicability

JFD C4 proposes to revise the STS format for constructing applicable conditions. **Comment:** This is a generic change that requires a staff-approved TSTF change. Revise the submittal to adopt the STS.

ComEd Response:

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3.9.5-01      DOC L4  
                 CTS 3/4.9.8.1 footnote \*

The footnote modifies the LCO by allowing the RHR loop to be removed from operation during the performance of Core Alterations in the vicinity of the reactor vessel hot legs. It has been proposed to delete the term "during the performance of Core Alterations in the vicinity of the reactor vessel hot legs" from the footnote. **Comment:** Insufficient justification has been provided for this proposed change. Revise the submittal and provide additional justification.

ComEd Response:

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3.9.5-02      Bases discussion for ITS 3.9.5 LCO, page B 3.9-1R

The LCO section describes why one RHR loop must be Operable and in operation. The STS identifies removal of decay heat, mixing of the borated coolant to minimize the possibility



**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

of criticality, and indication of reactor coolant temperature. The ITS has omitted mention of the indication of reactor coolant temperature. **Comment:** This is not a justifiable plant specific or editorial change. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.5-03**      **DOC M3**  
                  **CTS 3/4.9.8.1 Action**

The CTS Action is modified in the ITS to require "immediate" action to perform required remedial measures. **Comment:** The DOC does not address that time limits are imposed by adoption of the STS content. Provide a revised DOC.

**ComEd Response:**

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**3.9.5-04**      **DOC M9**  
                  **CTS 3/4.9.8.1 Note \***

The ITS provides allowances for removing a loop from operation. The CTS change ensures boron dilution does not occur with no loops in operation for the one-out-eight hour period permitted by the TS. **Comment:** Insufficient justification has been provided to state the safety basis for this provision. Revise the submittal and provide additional justification.

**ComEd Response:**

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**3.9.5-05**      **DOC LA10**  
                  **CTS 4.9.8.1**

The proposed CTS change relocates details regarding flow and temperature requirements during testing to licensee controlled documents. This is generic change TSTF-22. TSTF-22 was rejected by the staff. **Comment:** Withdraw the CTS change and resubmit revised ITS.

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

**3.9.6-01** JFD P5  
ITS 3.9.6 Condition A and Required Action A.1  
Bases discussion for ITS 3.9.6 Required Action A.1, page B 3.9-22

Condition A for STS 3.9.6 states, "Less than the required number of RHR loops Operable." Corresponding Condition A for ITS 3.9.6 states, "One or more RHR loops inoperable." STS Required Action A.1 refers to restoring the required RHR loops. ITS Required Action A.1 would omit the word "required". **Comment:** These are not justifiable plant specific or editorial differences. Revise the submittal to conform to the STS. These are generic changes. These changes should be brought to the Tech Spec Task Force for future action.

**ComEd Response:**

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**3.9.6-02** Bases discussion for ITS 3.9.6 LCO, page B 3.9-22

The LCO section describes why one RHR loop must be in operation. The STS states that mixing minimizes the possibility of criticality and that RHR must be in operation in order to provide indication of reactor coolant temperature. This material has not been adopted in the ITS. **Comment:** This is not a justifiable plant specific or editorial difference. Revise the submittal to conform to the STS.

**ComEd Response:**

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**3.9.6-03** DOC M3  
CTS 3/4.9.8.2 Action  
DOC M7

The CTS Action is modified in the ITS to require "immediate" action to perform required remedial measures. **Comment:** The DOC does not address that time limits are imposed by adoption of the STS content. Provide a revised DOC.

**ComEd Response:**

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**3.9.6-04** DOC LA10  
CTS SR 4.9.8.2

The proposed CTS change relocates details regarding flow and temperature requirements during testing to licensee controlled documents. This is generic change TSTF-22. TSTF-22 was rejected by the staff. **Comment:** Withdraw the CTS change and resubmit revised ITS.

**ComEd Response:**



**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

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**3.9.7-01**            CTS 4.9.10  
                     STS SR 3.9.7.1

The CTS markup for this Surveillance Requirement refers to determining the water level during the movement of irradiated fuel assemblies. Corresponding STS SR 3.9.7.1 does not contain this applicability reference. **Comment:** The CTS markup is in error. Revise the CTS markup to conform to the STS.

**ComEd Response:**

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**3.9.7-02**        Bases discussion for ITS 3.9.7 Applicable Safety Analysis, page B 3.9-25

The discussion in the STS refers to Regulatory Positions C.1.c and C.1.g of Regulatory Guide 1.25 which adopts a 23 foot minimum level requirement for refueling. **Comment:** This is not a justifiable editorial difference. Revise the submittal to either conform to the STS or provide plant specific Bases for the LCO limit of  $\geq 23$  feet of water above the reactor vessel flange.

**ComEd Response:**

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**3.9.7-03**        DOC L5  
                     ITS LCO 3.9.7

The CTS changes identified as L5 include administrative changes because CTS limits on movement of control rods is included in the ITS definition of CORE ALTERATIONS. **Comment:** Provide a separate identification and discussion of each administrative change.

**ComEd Response:**

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**3.9.7-04**        DOC L5  
                     ITS LCO 3.9.7

The CTS changes identified as L5 include less restrictive changes not discussed because CTS establish water level limits when fuel assemblies or control rods are moved with irradiated fuel seated in the reactor vessel. **Comment:** Provide a separate identification and discussion of each less restrictive change.

**ComEd Response:**



Byron & Braidwood Improved TS Review Comments  
Section 3.9, Refueling

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3.9.7-05 JFD C4  
ITS 3.9.7 Applicability

JFD C4 proposes to revise the STS format for constructing applicable conditions.  
**Comment:** This is a generic change that requires a staff-approved TSTF change. Revise the submittal to adopt the STS

**ComEd Response:**

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**Byron & Braidwood Improved TS Review Comments**  
**Section 3.9, Refueling**

**3.9-2** See table below

Proposed changes based on STS generic changes that are still pending or that have been rejected, as indicated in the table, should be withdrawn. Either adopt the STS or maintain the CTS requirements.

**Byron/Braidwood Units 1 and 2**  
**"Beyond Contractor Review Scope (BCRS)" Table**  
**Section 3.9, Refueling Operations**

Updated: November 25, 1997

ITS Section or ITS LCO	DOC	JFD	Reasons for Exemption of Review							Comment (if required)
			1	2	3	4	5	6	7	
3.9.7		C3 BC1	-	X	-	-	-	-	-	TSTF-20 11/24/97 status: pending
3.9.6	L11	C1 P4 BC2 BP24	-	X	-	-	-	-	-	TSTF-21 proposed R1 11/24/97 status: TCTF-21 approved on 5/19/97, but Rev 1 is not to staff for review.
3.9.5 3.9.6	LA10	C2	-	X	-	-	-	-	-	TSTF-22 11/24/97 status: Reject [] if CTS contains flow rates
B3.9.3		BC5 BP4	-	X	-	-	-	-	-	TSTF-23 R1 11/24/97 status: rejected 11/19/97 by TSTF, Rev3 is pending issuance for staff review, Rev2 is being reviewed by the staff.
3.9.3		C5 BC4	-	X	-	-	-	-	-	TSTF-96 11/24/97 status: approved 10/28/97
3.9		C4	-	X	-	-	-	-	-	WOG-81 11/24/97 status: WOG # not under review.
B3.9		BC3	-	X	-	-	-	-	-	Editorial-1 11/24/97 status: Approved 10/18/95
3.9.4	MB	P3	-	-	-	X	-	-	-	
3.9.1		P1	-	-	-	-	-	X	-	Editorial-11 11/24/97 status: Approved 4/11/97

P = plant specific; C = based on TSTF or WOG item; B = Bases

Reasons for exempting change from review:

- Cover letter 12-13-96, Attachment #3 Existing and Future Licensing Amendments to be incorporated into ITS.
- Cover letter 12-13-96, Attachment #4 Pending and Proposed ISTS Change Travelers
- ComEd letter 2-24-97, Attachment #1, Generic Changes versus CTS DOCs
- Cover letter 12-13-96, Attachment #5 Beyond Scope Change (changes that are different than both CTS and ITS).
- Cover letter 12-13-96, Attachment #6 Beyond Scope Bracketed Changes
- ComEd letter 2-24-97, Attachment #2, Plant Specific Change Justifications Which are Now in the Generic STS Change Process
- Other Reason as identified in comments to this table and with the written prior approval of the NRC Technical Monitor as referenced.