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ComEd

October 15, 1998

United States Nuclear Regulatory Commission Attn: Document Control Desk Washington D. C. 20555 - 0001

Subject: Revision K, Revision O, and Revision P to the Improved Technical Specifications (ITS) Submittal

> Byron Nuclear Power Station, Units 1 and 2 Facility Operating Licenses NPF-37 and NPF-66 NRC Docket Numbers: 50-454 and 50-455

> Braidwood Nuclear Power Station, Units 1 and 2 Facility Operating Licenses NPF-72 and NPF-77 NRC Docket Numbers: 50-456 and 50-457

Reference: G. Stanley and K. Graesser (Commonwealth Edison) letter to NRC Document Control Desk, "Conversion to the Improved Standard Technical Specifications," dated December 13, 1996

The purpose of this letter is to provide Revisions K, O, and P to the referenced ITS submittal. ITS Revision K contains Commonwealth Edison's (ComEd's) final Package Closeout for ITS Section 3.4. ITS Revision O is a cleanup package for ITS Sections 1.0/3.0/3.1/3.9/4.0. ITS Revision P contains ComEd's final Package Closeout for ITS Section 3.3.

Enclosure 1 contains ITS Revision K. Enclosure 2 contains ITS Revision O. Enclosure 3 contains ITS Revision P.

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These Revisions are being provided in the same ten-section format as the initial ITS submittal:

- 1. Byron ITS
- 2. Braidwood (Brwd) ITS
- 3. Byron CTS Markups
- 4. Brwd CTS Markups
- 5. CTS Discussion of Changes (DOCs)
- 6. LCO Markups
- 7. LCO Justification for Differences (JFDs)
- 8. Bases Markups
- 9. Bases JFDs
- 10. No Significant Hazards Consideration (NSHC)

Please address any comments or questions regarding this matter to our Nuclear Licensing Department.

Sincerely,

Tipothy J. Tulon Site Vice President Braidwood Nuclear Generating Station

Enclosure 1: ITS Revision K Enclosure 2: ITS Revision O Enclosure 3: ITS Revision P

cc: NRC Regional Administrator - Region III Senior Resident Inspector - Braidwood Senior Resident Inspector - Byron Office of Nuclear Facility Safety - IDNS

ATTACHMENT 1

ITS SECTION 3.4 RAI REVISED RESPONSES

RAI Status

Closed

09-Oct-98

NRC	RAI	Nu	mber
	3.4.1	-01	

NRC Issued Date

3/9/98

NRC Description of Issue

DOCs L4 and L11 CTS 3/4.2.3 Action a.2 CTS 3/4.2.5 Action ITS 3.4.1 Action B

DOC L4 is written to justify the same change made to both CTS 3/4.2.3 Action a.2 and CTS 3.2.5 Actions. CTS 3.2.3 Action a.2 requires the reduction of THERMAL POWER to < 50% RTP and the reduction of the Power Range Neutron Flux-High Trip Setpoint to 55% RTP within the next 4 hours when RCS total flow is not within limit. CTS 3.2.5 Action requires the DNB related parameters restored within 2 hours or to reduce THERMAL POWER to less than 5% of RATED THERMAL POWER within the next 4 hours. Both CTS Actions and 4 hour limit are changed to be ITS 3.4.1 Condition B which specifies a Completion Time of 6 hours to reach Mode 2. DOC L11 is written to justify the same change but only to CTS 3.2.5 Actions. Comment: It is recommended that L4 justify Action 3.2.3 only and L11 continue to justify Action 3.2.5 which would not require revision of the CTS markup.

ComEd Response to Issue

ComEd will revise DOC 3.4-L4 to only justify CTS Action 3.2.3.a.2. DOC 3.4-L4 will be revised to state. "CTS Action 3.2.3.a.2 requires that when the RCS flowrate is outside the region of acceptable operation, within 2 hours reduce THERMAL POWER ... within the next 4 hours. NUREG LCO 3.4.1, Condition A states that with one of the DNB parameters not within limits, a Completion Time of 2 hours is provided to restore the parameter to within limits. In the event that Condition A is not met. Condition B requires the plant be placed in MODE 2 within 6 hours. ITS revises the CTS Completion Time from 4 hours to 6 hours, and therefore is considered a Less Restrictive change. Using the general rules of applicability, the unit must be placed in a Mode of non-applicability, which in this case is Mode 2. Reaching MODE 2 in 6 hours is consistent with other LCOs that require the plant to be placed in MODE 2 from MODE 1. Therefore, the Completion Time of 6 hours is reasonable to reach the required unit conditions in an orderly manner." DOC 3.4-L11 will be revised to state. "CTS Action 3.2.5 states that with any of the DNB related parameters exceeding its limit, restore the parameter to within its limit within 2 hours, or reduce THERMAL POWER to less than 5% of RTP within the next 4 hours. NUREG LCO 3.4.1, Condition A states that with one of the DNB parameters not within limits, a Completion Time of 2 hours is provided to restore the parameter to within limits. In the event that Condition A is not met, Condition B requires the plant be placed in MODE 2 within 6 hours. ITS revises the CTS Completion Time from 4 hours to 6 hours, and therefore is considered a Less Restrictive change. Using the general rules of applicability, the unit must be placed in a Mode of nonapplicability, which in this case is Mode 2. Reaching MODE 2 in 6 hours is consistent with other LCOs that require the plant to be placed in MODE 2 from MODE 1. Therefore, the Completion Time of 6 hours is reasonable to reach the required unit conditions in an orderly manner." These changes will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







09-Oct-98

NRC RAI Number 3.4.1-02

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC L35 JFD C6 CTS 4.2.3.5

CTS 4.2.3.5 requires the determination of RCS total flow rate by a precision heat balance measurement after each fuel loading and states that "The 24 hour completion time provisions of Specification 4.0.3 are not applicable". ITS SR 3.4.1.4 requires a precision heat balance measurement every 18 months and allows for the provisions of ITS SR 3.0.3 to apply DOC L35 as submitted states a precision heat balance measurement will be performed per ITS SR 3.4.1.4. This is acceptable; however, JFD C6 deletes the precision heat balance measurement. Also JFD C6 refers to TSTF-105 which has been rejected. Comment: Revise the submittal to adopt the STS and retain the CTS requirements. Make the justifications for these two CTS changes consistent.

ComEd Response to Issue

Revised Response: ComEd withdrew TSTF-105 changes from the ITS submittal and retained "by precision heat balance that" in ITS SR 3.4.1.4. LCO JFD 3.4-C6 and Bases JFD 3.4-C6 were deleted. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will withdraw TSTF-105 changes from the ITS submittal and retain "by precision heat balance that" in ITS SR 3.4.1.4. CTS DOC LA18, LCO JFD C6, and Bases JFD C6 will be deleted. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL

NRC RAI Number	NRC Issued Date	RAI Status
3.4.1-03	3/9/98	Closed

NRC Description of Issue

DOC A1.1 CTS 4.2.3.1

CTS 4.2.3.1 states "The provisions of Specification 4.0.4 are not applicable." This CTS requirement is deleted with an editorial A1 justification rather than with a specific technical justification. Comment: Please provide a technical justification for this CTS change.

ComEd Response to Issue

DOC 3.4-A3 discusses the deletion of this statement. The CTS Markup for CTS SR 4.2.3.1 will be revised to reflect the correct reference to DOC 3.4-A3. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

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RAI Status

Closed

09-Oct-98

NRC RAI Number 3.4.1-04

NRC Issued Date

3/9/98

NRC Description of Issue

JFD P2 JFD BP2 ITS 3.4.1, Applicability Note

The Applicability Note is proposed to be moved to a place following the LCO statement as an editorial enhancement to preclude misinterpretations of ITS SR 3.0.4. This technical basis is unacceptable. This change occurs frequently in this submittal: therefore, this is a generic change and it should be submitted for review under the STS generic change process Comment: Revise the submittal to adopt the STS format. The response to this comment should be global over the entire submittal.

ComEd Response to Issue

No change. Because the relocation of the Note from the Applicability to the LCO has been approved on a plant specific basis for previous submittals (e.g., Ginna, Zion, and Vogtle), the WOG determined that this change was below the threshold for a generic change. Therefore, all of the Notes in the Applicability section of the NUREG LCOs have been moved to the LCO section of the ITS LCOs either plant specifically or as a result of a TSTF that was incorporated. The Note applies to exceptions to the entire LCO and not to exceptions to the Applicability. Having a Note that modifies the Applicability requirements could imply an exception to the Applicability and thus, could lead to a misinterpretation of SR 3.0.4. Placing the Note in the LCO Section prevents misinterpretation of SR 3.0.4. The following is a list of ITS LCOs in which this convention was adopted. LCOs in which the Note was moved by a plant specific change: 3.1.5, 3.1.6, 3.3.9, 3.4.1, 3.4.10, 3.4.12, and 3.9.6 (SR Note moved to LCO); LCOs in which the Note was moved by a TSTF: 3.2.3, 3.5.2, and 3.5.3 (SR Note moved to LCO); LCOs in which the Note was added by a plant specific change: 3.7.12, 3.8.5, and 3.9.4; LCOs in which the Note was added by a TSTF: 3.6.3. ComEd continues to pursue this change. (See RAIs 3.1.5-01, 3.1.6-01, 3.4.10-03, and 3.4.12-01 item b.)

NRC RAI Number	NRC Issued Date	RAI Statu
3.4.1-05	3/9/98	Closed

NRC Description of Issue

JFD BP1

Bases discussion of Applicable Safety Analyses, STS page B 3.4-2

In Applicable Safety Analyses, the second and third sentences regarding the DNB design criterion are not adopted. Why not state the plant specific DNB design criterion as the acceptance limit? Also, this is a not an editorial change but a technical change without a specific technical justification. Comment: Revise the Bases to be consistent with the STS.

ComEd Response to Issue

Revised Response: ComEd incorporated the plant specific value of 1.5 in the brackets and added Bases JFD 3.4-B3. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the Bases to be consistent with the STS, incorporating the plant specific value of "1.5" in the brackets. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.



09-Oct-98

NRC	RAI	Number	
	3.4.1	-06	

3/9/98

RAI Status Closed

NRC Description of Issue

JFD BP45

Bases discussion of Applicable Safety Analyses. STS page B 3.4-2

NRC Issued Date

In the Applicable Safety Analyses, the second paragraph has been replaced with the insert B3.4-2A. Why do the LCO values not match the value assumed in the safety analyses and reported measurement accuracy in the first and the second paragraph. For example, it appears that the pressurizer limit LCO value should be > 2233.7 (2207 + 26.7) with the reported measurement accuracy. Comment: Please revise the text in the insert to clarify the addition of this plant specific text to the Bases.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer, ComEd added a parenthetical psig reference to 2207 psia and changed 26.7 psia to 26.7 psi. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: No change. ITS LCO 3.4.1 states, "RCS DNB parameters for pressurizer pressure, ... shall be within the limits specified below: a. Pressurizer pressure 2219 psig" The Applicable Safety Analyses Section of the Bases for ITS LCO 3.4.1 states, "Safety Analyses assumed a value of 2207 psia. This value is bounded by the LCO value of 2219 psig assuming a measurement accuracy of less than 26.7 psia." The NRC RAI asked why the pressurizer pressure LCO value did not match the Bases value, stating that the LCO value should be 2233.7 based on using the safety analyses value of 2207 + 26.7. It is true that adding the safety analyses value (2207 psia) to the measurement accuracy of less than 26.7 psia yielding a total of 2233.7 psia. The pressurizer value in the ITS is 2219 psig. Therefore, 2233.7 psia - 14.7 = 2219 psig. Therefore, the LCO value matches the Bases value, and no change is required.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.1-07	3/9/98	Closed

NRC Description of Issue

JFD BP51 Bases discussion of Actions, STS page B 3.4-3

In the Bases discussion of Required Action A.1, all three paragraphs omit portions of the STS text. The deleted text explains the purpose of the Required Actions. JFD P51 states provides no explanation for the these omissions. Comment: Revise the Bases to conform to the STS.

ComEd Response to Issue

ComEd will revise the Bases to conform to the STS. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.





RAI Status

Closed

NRC RAI Number NRC Issued Date 3.4.2-01

3/9/98

NRC Description of Issue

DOCLA29 DOC M9 JFD C2 (Based on superceded TSTF-27 Rev 1 ?) CTS 4.1.1.4.b STS SK 3 4.2.1

DOC LA29 is not shown on the CTS markup. In addition, the text of LA29 contradicts JFD C2 which is based on TSTF-27 (replaced by Rev 2 which is pending). Comment: Withdraw the change to CTS 4.1.1.4.b and adopt STS SR 3.4.2.1.

ComEd Response to Issue

DOC 3.4-M9 will be revised to state, "CTS 4.1.1.4.b requires the verification of the RCS average temperature every 30 minutes when the reactor is critical and the Reactor Coolant System Tavg is less than 557 F with the Ta server deviation alarm not reset. The proposed ITS SR 3.4.2.1 requires verification of the RCS average temperature every 12 hours. ..." The CTS Markup will be revised such that DOC 3.4-LA29 refers to the Deviation Alarm, and DOC 3.4-M9 only refers to the "12 hours." This is consistent with similar changes in TSTF-27 for ITS LCOs 3.2.3 (CTS SR 4.2.1.1.b) and 3.2.4 (CTS SR 4.2.4.1.b). This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. ComEd continues to pursue this change.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.2-02	3/9/98	Closed

NRC Description of Issue

JFD BP1

Bases for Applicability of ITS 5.4.2, STS markup pages B 3.4-7 and B 3.4-8

The ITS Bases does not adopt the second paragraph of the Bases for the Applicability of STS 3.4.2 based upon an editorial change justification. This omission, however, is a technical change and has not been adequately justified. Furthermore, this paragraph is applicable to Byron and Braidwood because STS 3.1.10 (equivalent to CTS 3.10.3) is adopted as ITS 3.1.8. Comment: Revise the Bases to adopt the omitted STS paragraph.

ComEd Response to Issue

ComEd will revise the Bases to adopt the omitted STS paragraph. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.



09-Oct-98

NRC RAI Number 3.4.3-01

NRC Issued Date

3/9/98

RAI Status Closed

NRC Description of Issue

DOC M11 CTS 3.4.9.1 Action ITS 3.4.3 Action C

CTS 3.4.9.1 Action requires an engineering evaluation to be performed, in accordance with the Applicability of "At all times", whenever the pressure or temperature limits for the RCS have been exceeded: however, there is no explicit time limit provided to complete this evaluation. If these limits have been exceeded with the unit in a condition other than in Mode 1, 2, 3 or 4 Required Action C.1 for ITS 3.4.3 requires action be initiated immediately to restore compliance with the limits for the RCS and Require Action C.2 requires the determination that the RCS is acceptable for continued operation prior to the unit entering Mode 4. The DOC states "CTS 3.4.9.1 does not specify any required action whenever the pressure or temperature limits for the RCS have been exceeded in a specified condition other than in Mode 1, 2, 3, or 4, or Mode 5 with RCS pressure 500 psig." This statement ar pears to be in error since the CTS has the same Action regardless of the unit's operating Mode, if the RCS limits are exceeded. Comment: Please revise the submittal with a revised technical justification.

ComEd Response to Issue

ComEd agrees and will revise DOC M11 to state. "CTS LCO 3.4.9.1 does not specify a completion time for whenever the pressure or temperature limits for the RCS have been exceeded in a specified condition other than in Mode 1, 2, 3, or 4, or Mode 5. Condition C for ITS 3.4.3 requires that action be initiated immediately to restore compliance with the pressure and temperature limits for the RCS if these limits have been exceeded with the unit in a condition other than in Mode 1, 2, 3 or 4. Condition C requires the immediate initiation of action to restore parameters to within limits and the determination that the RCS is acceptable for continued operation prior to the unit entering MODE 4. These requirements are necessary to ensure that the RCPB is returned to a condition that has been verified by the stress analysis and that the RCPB integrity remains acceptable. This change represents a more restrictive change." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.3-02	3/9/98	Closed

NRC Description of Issue

Bases for ITS SR 3.4.3.1, STS Bases markup page B 3.4-15

The second paragraph has not been adopted: however, there is no justification for this deviation from the STS. There is no identity for tracking this JFD change. Comment: Please revise the submittal to provide a technical justification for this JFD or adopt the STS.

ComEd Response to Issue

Con.Ed will revise the submittal to adopt the STS. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.



09-Oct-98

NRC	RAI	Number
	3.4.4	-01

3/9/98

RAI Status Closed

NRC Description of Issue

JFD BP3

Bases for ITS LCO 3.4.4, STS Bases markup pages B 3.4-18 and B 3.4-19

NRC Issued Date

a. In the first paragraph, the last sentence is not adopted and the BP3 insert is added. The ir sert does state that in addition to all loops in operation that they are also Operable. Secondly, "all" loops need to be stated a . "four" loops are Operable to satisfy the movement of this requirement from CTS 3.2.3 to the Bases of 3.4.4 as described in DOC LA17. Comment: Revise the Bases as indicated.

b. In the second paragraph, when referring to an Operable SG the phrase "in accordance with the Steam Generator Tube Surveillance Program" is replaced with "providing the necessary heat transfer cap ibility." These phrases are not technically equivalent. This difference is not justifiable as an editorial enhan ement as indicated by JFD BP3. It is recommended that both phrases be used to define an Operable SG rather than one phrase in lieu of the other. Comment: Please revise the submittal to adopt the STS text.

ComEd Response to Issue

ComEd will revise the submittal to adopt the STS text. This change will be previded in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.5-01	3/9/98	Closed
NRC Description of Iss	ue	
DOC L3		
DOC L12		
DOC L23		
JFD P6		
JFD BP6		

ITS 3.4.5 and associated Bases are to be revised to separately address the condition of one RCS loop not in operation with the rod control system incapable of rod withdrawal and two RCS loops not in operation with the rod control system capable of rod withdraw. Note: These changes are in addition to an unapproved generic change (TSTF-87 Rev 1); and also, these are not plant specific requirements because they are not part of the current licensing basis. This "P" difference is miscategorized under the NEI 96-06 guidelines of Section 2.7, Deviations from the Applicable ISTS. It is a "C" difference. Note that TSTF-87 Revision 2 was approved 10/3/97. Comment: Revise the submittal to adopt Rev 2 to TSTF-87 consistent with plant design.

Note to TSB reviewer: Ffollowing ComEd's response and before closing this comment, review the revised Actions of ITS 3.4.5 to ensure consistency with either the CTS or Rev 2 to TSTF-87.

ComEd Response to Issue

ITS 3.4.5 Actions CTS 3/4.4.1.2 Actions

ComEd will revise LCO and Bases JFDs 3.4-C10 to reference TSTF-87, Revision 2. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4-01 item 9.) However, ComEd continues to pursue the plant specific changes associated with LCO and Bases JFDs 3.4-P6







NRC RAI Number 3.4.5-02

3/9/98

NRC Issued Date

Closed

RAI Status

09-Oct-98

NRC Description of Issue

JFD P1 JFD F1 JFD B2! ITS LCC 5.1.5.a and 3.4.5.b

a. The word "Operable" has been inserted before "RCS loop(s)" in LCO 3.4.5. This word is redundant to the LCO statement which already states "RCS loops shall be Operable". The word insertion is not accepted.

b. ITS LCO 3.4.5 Note b CTS 3.4.1.2 Footnote * item (2)

The ITS note is changed as follows "Core outlet temperature is maintained at least 100F below saturation temperature by 100F." The CTS requirement for this note is identical in wording to the STS text. There is no editorial enhancement perceived in this change. Changes are not accepted.

c. Bases ITS LCO 3.4.5, STS Bases markup page B 3.4-23

In the fifth paragraph, item b is reworded to conform to LCO Note b. This change is also not accepted.

Comment: For these three items, revise the submittal to adopt the STS text.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer. ComEd retained the word "OPERABLE". In addition. ITS LCOs 3.4.5, 3.4.6, 3.4.7, and 3.4.8 Note b was revised to state that the core outlet temperature is maintained greater that, or equal to 10'F below saturation temperature. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.4.6-02, 3.4.8-02, and 3.4.8-03.)





09-Oct-98

NRC	RA	IN	umber
	3.4.	5-0	3

NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC L5 JFD B3 JFD BB3 ITS SR 3.4.5.2 CTS 4.4.1.2.2 Bases for ITS SR 3.4.5.2, STS Bases markup page B 3.4-26

a. This change adds plant specific SG secondary side water level values which are different from those stated in the CTS. DOC L5 justifies the new values. The adequacy of these values can not be verified. There is no acceptable method for approving the new values as presented in these JFDs. Comment: Revise the submittal to explain the large difference in the values between Units 1 and 2 and why this difference is the exact same for both Byron and Braidwood.

b. The Bases for ITS SR 3.4.5.2 differs from the STS to conform to the proposed plant specific SG secondary side water levels values which are not the same as those stated in the CTS requirements. Comment: How was this change approved by the NRC five years ago but never incorporated into the CTS? Submit additional technical justification for this change.

ComEd Response to Issue

No change. NRC SER and Amendments 34 (Braidwood) and 45 (Byron), dated April 6, 1992 approved ComEd's request to change the Steam Generator (SG) secondary side narrow range water level to be greater than or equal to 33% for Unit 1 (Westinghouse D4 SGs) and 37% for Unit 2 (Westinghouse D5 SGs). The difference in SG level values between Unit One (41% to 33%) and Unit Two (18% to 37%) is attributable to the CTS LAR encompassing water level setpoint optimization on both units, and SG level tap relocation on Unit Two only. This change was accurately made in CTS Tables 2.2-1 and 3.3-4. However, CTS page 3/4 4-4 for CTS SR 4.4.1.3.2 was inadvertently not changed. In developing the CTS markup for the conversion to ITS, CTS page 3/4 4-4 was used and was marked up to reflect the correct values as approved in Amendments 34 and 45. Although this CTS SR contained the incorrect values, the plants administratively control the water level at greater than or equal to 41% which is more conservative. ComEd continues to pursue this change. (See RAI 3.4.7-04.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.5-04	3/9/98	Closed

NRC Description of Issue

JFD BP1

Bases for ITS LCO 3.4.5, STS Bases markup page B 3.4-23

In the last paragraph, when referring to an Operable SG, the phrase "in accordance with the Steam Generator Tube Surveillance Program" was not adopted. This phrase is important for stating under what additional conditions the SG must be Operable for this LCO. Also, JFD BP1 does not adequately justify this difference. Comment: Revise the Bases to adopt the STS text.

ComEd Response to Issue

ComEd will revise the Bases to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number 3.4.5-05 NRC Issued Date 3/9/98

RAI Status

Closed

NRC Description of Issue

Bases for ITS SR 3.4.5.3, STS Bases markup page B 3.4-26

The Bases discussion reduces requirements about how the safety analysis limits are met and adds a new basis for the 7 day Frequency. JFD BP1 does not adequately justify these technical differences from the STS Bases. Comment: Revise the submittal to adopt the STS text.

ComEd Response to Issue

No change. 1TS Bases SR 3.4.5.3 was revised to provide a discussion concerning the 7 day Frequency for SR 3.4.5.3. This change was added for consistency and clarification. Other STS SRs contain a brief discussion as to the justification reason for the specific SR Frequency. This change is no different. STS SR 3.4.5.3 does not contain any information pertaining to the 7 day Frequency. ComEd provided additional information to assist the operator and enhance their knowledge concerning the reasoning behind the 7 day Frequency. This change does not alter any technical content or philosophy of the STS, and provides additional information for the user. ComEd continues to pursue this change. ComEd will, however, conform to the STS text for the first and second sentences for the Bases discussion of ITS SR 3.4.5.3.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.6-01	3/9/98	Closed
NRC Description of Iss	ue	
DOC A8		
JFD P7 and BP7		
ITS 3.4.6 Action C		

Unlike the STS, ITS 3.4.6 Action C addresses the condition of two required [RCS or RHR] loops not in operation. This difference is not plant specific because the proposed action requirement is not in the CTS. This is a C-type difference. Also, the CTS markup associated with DOC A8 does not accurately justify the addition of proposed ITS 3.4.6 Action C. Comment: Revise the submittal to adopt the STS action requirements.

ComEd Response to Issue

CTS 3/4.4.1.2 Actions

No change. The LCO allows either RCS or RHR loops to satisfy the requirement for decay heat removal in MODE 4. Any combination of two loops Operable may be used to satisfy the LCO. A loop is "required" when the loop is used to satisfy the LCO. Operable loops in excess of the two required to satisfy the LCO are not "required." Condition entry is only necessary when the total number of Operable loops is less than that required by the LCO. NUREG LCO 3.4.6 attempts to account for the designation of required loops by stating, "Two RHR loops inoperable" in Condition A and "Two RCS loops inoperable" in Condition B. The presumption in Condition A is that when two RHR loops are inoperable, two RCS loops are then required. Similarly, Condition B presumes that when two P.CS loops are inoperable, two RHR loops are required. This logic does not hold for plants with three or more RCS or RHR loops or for situations in which the plant is using one RHR and one RCS loop to meet the LCO. Although the wording is different than the STS, the intent has not been changed. In addition, the intent of the STS is to provide a Condition where the required loops are either inoperable or not in operation. The STS Condition C accomplishes this by stating all combinations of RCS and RHR loops inoperable or not in operation. This approach was deemed confusing by Operators. In an attempt to clarify Condition C, ComEd revised Condition C for two required loops inoperable no matter what combination of RHR or RCS loops. The condition where no loops are in operation is contained in Condition A. This clarification does not change any intent or technical requirements as presented in the STS. A similar change was proposed by H.B. Robinson plant and became WOG-109. In addition, TSTF-263 contains similar changes. The proposed change was approved plant specifically for H.B. Robinson. ComEd continues to pursue this change. (See RAIs 3.4.7-01, 3.4.7-07, 3.4.8-01, and 3.4.8-08.)





09-Oct-98

NRC RAI Number 3.4.6-02 NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue JFD P1 ITS LCO 3.4.6

a. The word "Operable" has been inserted in the last phrase stating with "one OPERABLE loop shall be in operation." This word is redundant to the first part of the LCO statement which already states "...RCS and RHR loops shall be Operable.". The word insertion is not accepted.

b. JFD P1 JTS LCO 3.4.6 Note 1.b CTS 3.4.1.3 Footnote * item (2)

The ITS note is changed as follows "Core outlet temperature is maintained at least 10oF below saturation temperature by 10oF." The CTS requirement for this note is identical in wording to the STS text. There is no editorial enhancement perceived in this change.

c. JFD BP1

Bases for ITS LCO 3.4.6, S". S Bases markup page B 3.4-28

In the fifth paragraph, item b is reworded to conform to the LCO Note 1.b. This change is also not accepted.

Comment: For the above differences, revise the submittal to adopt the STS text.

ComEd Response to Issue

Revised Response: See RAI 3.4.5-02 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the submittal to adopt the STS text This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NKC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.4.5-02, 3.4.8-02, and 3.4.8-03.)





09-Oct-98

NRC RAI Number

RA! Status

3.4.6-03

NRC Issued Date

3/9/98

Closed

NRC Description of Issue

ITS 3.4.6 Applicability Notes

PTLR

Letter from Capra (NRC) to Kingsley (ComEd) dated 1/21/98, regarding acceptance for referencing of PTLR, and enclosed safety evaluation

(SRXB comment) Byron & Braidwood's LTOP analyses account for RCP dynamic head effects and the resultant pressure drop between the location of the limiting vessel material and the pressure transmitter used to actuate the LTOP system. in the LTOP analyses, you assumed all four RCPs and both RHR pumps running when the RCS is above 120°F, and accounted for the maximum resulting head effect. However, for RCS temperature below 120°F you assumed only one RCP is in operation and accounted for the dynamic head effect of that single RCP (in addition to the two RHR pump). Comment: Revise the Applicability Notes of ITS 3.4.6 with an additional note consistent with this assumption. This may be submitted in a form similar to the note to Section 3.4.6 which is related to the 50°F primary/secondary difference limit for starting a RCP.

ComEd Response to Issue

No change. ComEd disagrees. The referenced SER accurately reflects the assumptions used in the LTOP analysis for operation above and below 120 F. These are assumptions incorporated in the Staff approved methodology. They do not, however, result in operational restrictions. The net impact of these conditions is to the LTOP setpoint, not the plant operation.

The two items that are in Tech Specs (TS) concerning the basis of LTOP setpoints define the initiating events that the LTOP system protects against. These items are, 1) the number of ECCS pumps injecting during an LTOP mass injection event (charging pump at full flow), and 2) the temperature difference for the heat injection event (50'F). These two initiating events are specifically discussed in Section 3.1 of WCAP-14040-NP-A, methodology used to develop cold overpressure mitigating system setpoints and RCS heatup and cooldown limit curves, and the associated SER. Beyond the initiating events, other factors are considered in the LTOP setpoint determination. Differential pressure and instrument uncertainty are two of these. The application of these secondary items are administratively controlled by ComEd. This concept of administrative control was accepted by the Staff in our recent discussions for the approval of the PTLR amendment. TS do not have restrictions on other secondary items (i.e., there are no TS requirements specific to the calibration of the instruments involved which will affect the total instrument tolerances applied to the LTOP setpoints). ComEd believes that it is not the Staff's intention to include these secondary issues in TS. (Correction Note: This should be a 3.4.7 RAI question, not 3.4.6.)

Additionally, the mode of applicability for ITS 3.4.6 is mode 4, which corresponds to a minimum temperature of 200 F. The LTOP analysis assumes the most limiting operational parameters in this mode. Noting the different assumption for a condition not addressed by this specification is not desirable.





09-Oct-98

NRC RAI Number 3.4.7-01

3/9/98

NRC Issued Date

RAI Status Closed

Status

NRC Description of Issue

JED P8 ITS 3.4.7 Actions CTS 3/4.4.1.4.1 Actions JFD BP8

Unlike the STS. ITS 3.4.7 addresses the condition of a required RHR loop not in operation. These differences are not plant specific because they are not in the CTS. This is a C-type difference. Also, why are there not equivalent CTS DOCs provided for these changes? The CTS does not reflect these changes. Comment: Revise the submittal to adopt the STS action requirements. ComEd is encouraged to propose a generic change to the STS. See similar comments 3.4.6-01 and 3.4.8-01.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer. ITS Condition B was split into two separate Conditions. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: See ComEd Response to RAI 3.4.6-01. (See RAIs 3.4.6-01, 3.4.7-07, 3.4.8-01, and 3.J.8-08.)

NRC RAI Number	NRC Issued Date	RAI Stat
3.4.7-02	3/9/98	Closed

NRC Description of Issue

DOC A.1 JFD PI ITS LCO 3.4.7.b CTS 3.4.1.4.1.b CTS 3/4.4.1.4.1 Action a JFD BP1 Bases for ITS 3.4.7 Applicability, STS Bases markup page B 3.4-33

STS 3.4.7.b is reworded as follows: "The secondary side water level of a least two Steam Generators (SGs) shall be > [17%] OPERABLE." Throughout the STS, an Operable SG means "Operable in accordance with the Steam Generator Tube Surveillance Program". The STS text is very explicit here to require the secondary side water level of an Operable SG to be a condition of Operability for this LCO. These are technical changes to the CTS requirements which are inadequately justified as an editorial change under DOC A1. As presented, this is a less restrictive change to the CTS which requires an "L" DOC. Correspondingly, JFD P1 is inadequate justification for these changes. These change are not accepted as justified. Comment: Revise the submittal to adopt the STS text.

ComEd Response to Issue

ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







NRC RAI Number 3.4.7-03

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

JFD P1 ITS LCO 3.4.7 Note 1.b CTS 3.4.1.4.1 Footnote * item (2)

a The ITS note differs from the corresponding STS note as follows "Core outlet temperature is maintained at least 10oF below saturation temperature by 10oF." The CTS requirement for this note is identical in wording to the STS text. There is no editorial enhancement perceived in this change.

JFD BP1

Bases for ITS LCO 3.4.7, STS Bases markup page B 3.4-34

b In the third paragraph, item b is reworded to conform to LCO Note 1.b.

Comment: The above differences are not justifiable on a plant-specific or editorial basis. Revise the submittal to adopt the STS text.

ComEd Response to Issue

Revised Response: See RAI 3.4.5-02 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.7-04	3/9/98	Closed

NRC Description of Issue

JFD B3 DOC L5 ITS SR 3.4.7.2 CTS 3.4.1.4.1.b JFD BB3 Bases for ITS SR 3.4.7.2, STS Bases markup page B 3.4-36

The ITS contains plant specific SG secondary side water level values which are different from the values in the CTS requirements, as discussed in DOC L5. The adequacy of these values can not be verified. There is no acceptable method for approving the new values as presented in these justifications. Also, explain the large difference in the values between Units 1 and 2 and why this difference is the exact same for both Byron and Braidwood.

Comment: How was this change approved by the NRC five years ago but not incorporated into the CTS? Revise the submittal with additional technical justification for this change. See similar comment 3.4.5-03.

ComEd Response to Issue

No change. NRC SER and Amendments 34 (Braidwood) and 45 (Byron), dated April 6, 1992 approved ComEd's request to change the Steam Generator (SG) secondary side narrow range water level to be greater than or equal to 33% for Unit 1 (Westinghouse D4 SGs) and 37% for Unit 2 (Westinghouse D5 SGs). This change was accurately made in CTS Tables 2.2-1 and 3.3-4. However, CTS page 3/4 4-4 for CTS SR 4.4.1.3.2 was indvertently not changed. In developing the CTS markup for the conversion to ITS, CTS page 3/4 4-4 was used and was marked up to reflect the correct values as approved in Amendments 34 and 45. Although this CTS SR contained the incorrect values, the plants administratively control the water level at greater than or equal to 41% which is more conservative. ComEd continues to pursue this change. (See RAI 3.4.5-03.)





09-Oct-98

09-Oct-98

NRC RAI Number 3.4.7.05

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC A25 JFD P39 ITS SR 3.4.7.1 CTS 4.4.1.4.1.2

CTS 4.4.1.4.1.2 states "At least one RHR loop shall be verified in operation and circulating reactor coolant..." which is consistent with the STS. Alternatively, ITS SR 3.4.7.1 states this verification is for the "required" RHR loop in operation. This change and difference introduces an ambiguity that is not present in the CTS and STS. The SR does not try to determine which is the "required" RCS or RHR in operation but explicitly states that any one must be in operation. Comment: Withdraw the change and adopt the STS text.

ComEd Response to Issue

No change. The word "required" was added to the SR for verifying one RHR loop is in operation to ensure that the RHR loop that is in "operation" is the RHR loop that is designated as the "OPERABLE" loop. This eliminates the possibility of crediting a non-operable (as required by the LCO) RHR loop as the RHR loop in operation. ComEd continues to pursue this change. (See RA13.4.8-06.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.7-06	3/9/98	Closed

NRC Description of Issue

DOC M3 CTS 3.4.1.4.1 Footnote * ITS LCO 3.4.7 Note 1 TSTF-153 (approved 4/11/97)

STS LCO 3.4.7 Note 1 as revised by TSTF-153 does not begin with the word "all" as does the ITS note. Comment: This difference is not justifiable on a plant-specific or editorial basis. Revise the ITS note to conform to the STS as revised by TSTF-153.

ComEd Response to Issue

ComEd will revise the ITS note to conform to the STS as revised by TSTF-153. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL





09-Oct-98

NRC	RAI	Numb	ber
	3.4.7	-07	

RAI Status Closed

NRC Description of Issue

DOC M13 CTS 3/4.4.1.4.1 Action b STS 3.4.7 Action B ITS 3.4.7 Actions A, B & C

CTS 3.4.1.4.1 Action b provides action with no RHR loop in operation. STS 3.4.7 Action B provides Required Actions with 'Required' RHR loops inoperable OR no RHR loop in operation. The compensatory Actions for both the CTS and STS are the same. DOC M13 states "ITS 3.4.7 and ITS 3.4.8. Condition C, adds the Condition, two required RHR loops inoperable. This Condition does not exist in CTS." Two inoperable RHR loops are the same as no RHR loops in operation in Mode 5. There is no change here but an equivalence between the CTS and the STS which is obscured by the reformatting of the Actions as described by JFD P8. Comment: Withdraw the change and adopt the STS action requirements.

ComEd Response to Issue

ComEd disagnees that two inoperable RHR loops is the same as no RHR loops in operation, which is why the DOC was categorized as an 'M' DOC. In addition, NUREG LCOs 3.4.5, 3.4.6, 3.4.7, and 3.4.8 specify "... shall be OPERABLE and in operation ..." indicating two separate and distinct requirements. Therefore, the ITS Actions and SRs were written accordingly. (See RAIs 3.4.6-01, 3.4.7-01, 3.4.8-01, and 3.4.8-08.)

NRC RA! Number	NRC Issued Date	RAI Status
3.4.7-08	3/9/98	Closed
NRC Description of Iss	ue	

NRC Issued Date

3/9/98

JFD P9 ITS SR 3.4.7.1 Note CTS 3.4.1.4.1.b

JFD P9 justifies including a note in ITS SR 3.4.7.1 that the STS does not have. The new Note says "Only required when complying with LCO 3.4.7.b". The CTS do not allow this relaxation of the Operability requirements of CTS 3.4.1.4.1.b. This note would permit a SG to remain inoperable and thus not immediately available, in the event the backup RHR loop became inoperable. Also, a note like this should never be buried in the SR but placed in the LCO. There is no less restrictive technical DOC provided for this change. Comment: This change and difference are not justifiable on a plant-specific or editorial basis. Revise the submittal to withdraw the note.

ComEd Response to Issue

ComEd disagrees with the statement, "The CTS does not allow this relaxation of the Operability requirements of CTS 3.4.1.4.1.b," but ComEd agrees with the statement, "This note would permit a SG to remain inoperable and thus not immediately available, in the event the backup RHR loop became inoperable." CTS SR states, "The secondary side water level of at least two steam generators WHEN REQUIRED shall be" In addition, NUREG SR 3.4.7.2 states, "Verify SG secondary side water level is greater than or equal to [17]% in REQUIRED SGs." When the LCO is being met with one RHR loop OPERABLE and in operation and an additional RHR loop OPERABLE, there is no requirement for SGs and therefore SR 3.4.7.2 which verifies SG secondary side water level is not required to be performed. SR 3.4.7.2 is only required to be performed when the LCO is being met with one RHR loop OPERABLE and in operation and the water level of two SGs OPERABLE. However, since SR 3.4.7.2 contains the words "required SGs" the Note will be deleted. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (Correction Note: LCO JFD 3.4-P9 justifies adding a Note in ITS SR 3.4.7.2, not ITS SR 3.4.7.1.)





NRC RAI Number 3.4.7-09

NRC Issued Date 3/9/98

RAI Status Closed

09-Oct-98

NRC Description of Issue

JFD C14 ITS LCO 3.4.7 Note 1 CTS 3.4.1.4.1 Footnote * **TSTF-153**

ITS LCO 3.4.7 Note 1 contains a proposed change to pennit "All RHR pumps..." to be de-energized. CTS 3.4.1.4.1 Footnote * only permits "The RHR pump ... " or one RHR pump to be de-energized. Comment: See comment 3.4.7-06.

ComEd Response to Issue

ComEd will revise the ITS note to conform to the STS as revised by TSTF-153. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4.7-06.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.7-10	3/9/98	Closed

NRC Description of Issue

JFD BP1 Bases for ITS LCO 3.4.7, STS Bases markup page B 3.4-33

In the first paragraph, the discussion pertaining to any combination of two RCS or RHR loops does not adopt the reason for "meeting single failure considerations" and adds in its place to "provide adequate redundancy for decay heat removal". Comment: This difference is not justifiable on a plant-specific or editorial basis. Revise the submittal to adopt the STS text.

ComEd Response to Issue

ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the IT'S Section 3.4 RAI. (See RAI 3.4.8-09.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.8-01	3/9/98	Closed

NRC Description of Issue

JFD P10 ITS 3.4.8 Actions CTS 3/4.4.1.4.2 Actions JFD BP10

ITS 3.4.8 Action A and associated Bases address the Condition of a required RHR loop not in operation, as discussed in JFD P10. STS 3.4.8 Action B, however, addresses this same condition. Thus there is no need to deviate from the format of the STS Actions. In addition, this difference is not plant specific because this requirement is not in the CTS. Therefore, this is a C-type difference. Comment: Withdraw the difference and adopt the STS format for the Actions. See similar comments 3.4.6-01 and 3.4.7-01

ComEd Response to Issue

See ComEd Response to RAI 3.4.6-01. (See RAIs 3.4.6-01, 3.4.7-01, 3.4.7-07, and 3.4.8-08.)





NRC RAI Number

3.4.8-02

3/9/98

NRC Issued Date

RAI Status Closed 09-Oct-98

NRC Description of Issue

JFD P1 ITS 3.4.8, LCO Note 1.b CTS 3.4.1.4.2 Footnote ** item (2)

The ITS note differs from the corresponding STS note as follows: "Core outlet temperature is maintained \geq 10oF below saturation temperature by \geq 10oF." There is no editorial enhancement perceived in this change. Comment: Revise the submittal to adopt the STS presentation.

ComEd Response to Issue

Revised Response: See RAI 3.4.5-02 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. See RAIs 3.4.5-02, 3.4.6-02, and 3.4.8-03.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.8-03	3/9/98	Closed

NRC Description of Issue

JFD P1 ITS LCO 3.4.8

The word "Operable" has been inserted in the last phrase of STS LCO 3.4.8 to state that "one OPERABLE RHR loop shall be in operation." This word is redundant to the first part of the LCO statement which already states "Two...RHR loops shall be Operable,". The word insertion is not accepted. Comment: Revise the submittal to adopt the STS text.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer, this comment was withdrawn.

Original Response: ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.4.5-02, 3.4.6-02, and 3.4.8-02.)



09-Oct-98

NRC RAI Number 3.4.8-04

NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue

JFD P32 ITS 3.4.8 Note 1 STS 3.4.8 Note 1 CTS 3.4.1.4.2 Note ** JFD BP37

ITS 3.4.8 Note 1 states "All RHR pumps may be [de-energized] for < 1 hour..." STS 3.4.8 Note 1 states "All RHR pumps may be de-energized for < 15 minutes when switching from one loop to another..." CTS Footnote ** states only "The RHR pump may be de-energized for up to one hour..."; but does not state a reason for de-energizing. JFD P32 deals only with the length of time issue for this difference. It states de-energizing all RHR pumps is consistent with the CTS requirements, but this is not so. Comment: JFD P32 states 15 minutes is adequate to switch loops; if so, why not adopt the STS text as is? If one hour is needed for each pump, then add a note to match the CTS requirement for one RHR pump de-energized at a time. Revise the submittal to adopt the STS or revise it consistent with the CTS, as described.

ComEd Response to Issue

No change. It is Byron's and Braidwood's Current Licensing Basis (CLB) to allow de-energizing an RHR pump for 1 hour without stating a reason for the de-energization. LCO JFD 3.4-P32 was only intended to justify maintaining the CLB of 1 hour. LCO JFD 3.4-P35 justifies maintaining the CLB for not limiting the de-energization of the RHR pumps to "when switching from one loop to another." Further, since both CTS and ITS require only one RHR loop be in operation. ComEd perceives the CTS wording of "The RHR pump may be ..." to be equivalent to the ITS wording of "All RHR pumps may be" ComEd disagrees with the statement, "If one hour is needed for each pump, then add a note to match the CTS requirement for one RHR pump de-energized at a time." There is neither a restriction for preventing or requiring the second OPERABLE RHR pump from being in operation. Therefore, the second pump does not need a Note governing its operation. ComEd continues to pursue this change. (See RAI 3.4.8-05.)

NRC RAI Number

3.4.8-05

NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue JFD P35 ITS LCO 3.4.8 Note 1 STS LCO 3.4.8 Note 1 CTS 3.4.1.4.2 Note ** JFD BP49

Bases for ITS LCO 3.4.8, STS Bases markup page B 3.4-38

ITS LCO 3.4.8 Note 1 states "All RHR pumps may be removed from operation for < 1 hour..." STS 3.4.8 Note 1 states "All RHR pumps may be de-energized for < 15 minutes when switching from one loop to another..." CTS Footnote ** states "The RHR pump may be de-energized for up to one hour..."; without a stated reason for de-energizing. JFD P35 deals only with the stated reason for de-energizing the RHR pumps and misquotes the CTS footnote ** as being applicable to all RHR pumps, rather than one; so, adopt the STS text as is. If one hour is needed for each pump, then add a note to match the CTS requirement for one RHR pump de-energized at a time. Comment: Revise the submittal to adopt the STS or revise it consistent with the CTS, as described. Recommend coordinating the response to this comment with the response to comment 3.4.8-04.

ComEd Response to Issue

See ComEd Response to RAI 3.4.8-04.

NRC RAI Number 3.4.8-65 NRC Issued Date

RAI Status Closed 09-Oct-98

NRC Description of Issue

DOC A25 JFD P39 ITS SR 3.4.8.1 CTS 4.4.1.4.2 JFD BP39

CTS 4.4.1.4.2 states "At least one RHR loop shall be verified in operation and circulating reactor coolant...". ITS SR 3.4.8 revises this requirement to state this verification is for the "required" RHR loop in operation. This change introduces an ambiguity that is not present in the STS. The SR does not try to determine which is the "required" RCS or RHR in operation, but explicitly, states that any loop must be in operation. Comment: Adopt the STS text which is consistent with the CTS requirement.

ComEd Response to Issue

See ComEd Response to RAI 3.4.7-05.

NRC RAI Number 3.4.8-07 NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue

DOC M2 CTS 3.4.1.4.2 Footnote * * ITS LCO 3.4.8 Note 1c

CTS 3.4.1.4.2 Footnote ****** shows the additions of a Note 3 to this footnote; however, the footnote does not match the note in the ITS. The wording of this note which is adopted from the STS has been editorially enhanced. The acceptable wording is as follows "(3) No draining operations are permitted that would further reduce the RCS water volume." Comment: Revise the CTS markup to be consistent with the ITS.

ComEd Response to Issue

ComEd will revise the CTS markup to be consistent with the ITS. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL.

NRC RAI Number	NRC Issued Date	RAI Statu
3.4.8-08	3/9/98	Closed

NRC Description of Issue

DOC M13 CTS 3/4.4.1.4.2 Action b STS 3.4.8 Action B ITS 3.4.8 Action A, B & C

CTS 3/4.4.1.4.2 Action b addresses the Condition of no RHR loop in operation. STS 3.4.8 Action B provides Required Actions with Required RHR loops inoperable OR no RHR loop in operation. The compensatory Actions for both the CTS and STS are the same. DOC M13 states "ITS LCO 3.4.7 and ITS LCO 3.4.8, Condition C, adds the Condition, two required RHR loops inoperable. This Condition does not exist in CTS." Two inoperable RHR loops are the same as no RHR loop in operation in Mode 5. There is no change here but an equivalence between the CTS and the STS which is obscured by the reformatting of the LCO under JFD P10. Comment: Withdraw the change and adopt the STS Conditions, as written. See comment 3.4.7-07.

ComEd Response to Issue

See ComEd Response to RAI 3.4.7-07.

09-Oct-98

NRC	RAI	Number	

3/9/98

NRC Issued Date

3/9/98

RAI Status Closed

3.4.8-09 NRC Description of Issue

JFD BP1

Bases for ITS LCO 3.4.8, STS Bases markup page B 3.4-37

In the first paragraph pertaining to the discussion of any combination of two RCS or RHR loops, the ITS does not adopt the STS reason for "meeting single failure considerations" but adds in its place the words "provide adequate redundancy for decay heat removal". Comment: This is not a justifiable plant-specific or editorial difference. Revise the submittal to adopt the STS text.

ComEd Response to Issue

ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL (See RAI 3.4.7-10.)

NRC RAI Number 3.4.9-01

NRC Issued Date

RAI Status Closed

NRC Description of Issue

JFD P40 ITS 3.4.9 Action B CTS 3/4.4.3 Action a

ITS 3.4.9 Action B, corresponding to CTS 3/4.4.3 Action a, allows both required groups of pressurizer heaters to be inoperable for 72 hours. In this condition, the pressurizer heater function is lost. Also, it is possible under the multiple condition entry convention of the STS, that the pressurizer level could be concurrently inoperable. Were this to occur, none of the LCO requirements would be met - which produces a loss of function condition for this LCO. Corresponding STS 3.4.9 Action B permits only one group of heaters to be inoperable for 72 hours only while an Operable redundant group is Operable. Therefore, this is not consistent with the Bases as the technical justification states. NUREG-0452 on which the CTS is based does not permit both pressurizer heater groups to be inoperable.

JFD BP40 JFD BP1 JFD BP3 Bases discussions of Required Actions B.1, C.1, and C.2, STS Bases markup page B 3.4-43.

Acceptance of the changes to the two Bases discussions listed are contingen, upon resolution of the differences addressed by JFD P40. JFDs BP1 and BP3 are linked to JFD BP40. Comment: Reference the NRC safety evaluation which made this change to allow both required groups to be inoperable, or adopt the more restrictive requirements of the STS.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer, INSERT B 3.4-41A has been added to the Background Section of the Bases for ITS LCO 3.4.9. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: The Actions Section of the Bases for ITS LCO 3.4.9 will be revised to state, "If the required groups of pressurizer heaters are inoperable, restoration is required within 72 hours. The Completion Time of 72 hours is reasonable considering the anticipation that a demand caused by loss of offsite power would be unlikely in this period. Pressure control may be maintained during this time using the remaining pressurizer heater capability." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL



09-Oct-98

NRC RAI Number 3.4.9-02

3/9/98

NRC Issued Date

RAI Status

NRC Description of Issue

JFD BP41 JFD BP48 Bases for ITS LCO 3.4.9, STS Bases markup page B 3.4-41

In the second paragraph of the STS Bases states that the two required pressurizer heater groups are "capable of being powered from either the offsite power source or the emergency power supply." The ITS replaces these words with the statement that the heater groups are "capable of being powered from an ESF power supplied bus." and omits information regarding the capability of being powered from an offsite power source. In addition, the ITS adds a sentence to explain that offsite (normal) power is not required for pressurizer heater operability. Comment: The proposed differences from the Bases are unnecessary because the ITS definition of operability requires either emergency or offsite power, not both, for the supported system to be operable. Revise the Bases to adopt the STS wording.

ComEd Response to Issue

ITS LCO 3.4.9 item b is being revised to state, "Two groups of pressurizer heaters OPERABLE with ... and capable of being powered from redundant Engineered Safety Feature (ESF) power supplied buses." Correspondingly, the second paragraph in the LCO Section of the Bases for ITS LCO 3.4.9 is being revised to state, "The LCO requires two groups ..., capable of being powered from redundant ESF power supplied buses." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

The pressurizer heaters are non-safety related. Plant design consists of a total heater capacity of 1800 kw which is divided into four groups (A, B, C, and D) with separate controls for the proportional group (C) and the back up groups (A, B, and D). Heater groups A and D are supplied by non-ESF bus 143, while groups B and C are supplied from non-ESF bus 144. The non-ESF buses servicing the pressurizer heaters (buses 143 and 144) can be powered by either the Unit Auxiliary Transformer (UAT), or the unit-specific System Auxiliary Transformer (SAT) which is termed "normal power" per ITS Section 3.8. The ESF buses (buses 141 and 142) can be powered by the unit-specific SAT (which is termed "normal power" per ITS Section 3.8), the opposite-unit SAT (which is termed "reserve power" per ITS Section 3.8), or the emergency diesel generator. The ESF buses must be capable of powering, via a cross-tie, the non-ESF buses to satisfy ITS SR 3.4.9.3. Therefore, the statement in the LCO Section of the Bases for ITS LCO 3.4.9, "The LCO requires two groups ..., capable of being powered from redundant ESF power supplied buses" reflects the current plant design. Since the only safety function for pressurizer heaters is in a loss of offsite power condition, normal power is not required for OPERABILITY. That is, "normal" power to a non-ESF bus is not required, but rather the non-ESF bus must be capable of being powered from an ESF bus. ComEd continues to pursue this change.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.9-03	3/9/98	Closed

NRC Description of Issue

JFD BP1 Bases for ITS SR 3.4.9.1, STS Bases markup page B 3.4-43

The first sentence of the first paragraph of the listed ITS Bases discussion differs from the STS as follows: "This SR requires that during steady state operation, pressurizer level to be maintained below the nominal upper limit to provide a minimum space for a steam bubble." Comment: This difference is not justifiable on a plant-specific or editorial basis. The STS sentence is clear. Revise the Bases to adopt the STS words.

ComEd Response to Issue

ComEd will revise the Bases to adopt the STS wording. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon RC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL.





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NRC RAI Number 3.4.10-01

NRC Issued Date 3/9/98

RAI Status

Closed

NRC Description cf Issue

Not used

ComEd Response to Issue

No response required.

NRC RAI Number 3.4.10-02

NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue

DOC M17 CTS 3.4.2.2 and Footnote * ITS 3.4.10 Applicability Note

CTS 3.4.2.2 and Footnote * requires the pressurizer safety valves to be set within the lift setting limits at normal operating temperature and pressure. The Applicability Note to ITS 3.4.10 allows entry into Mode 3 at normal operating temperature and pressure for up to 54 hours to set the lift settings at normal operating temperature and pressure. CTS 3.4.2.2 has no exception to CTS 3.0.4. Thus, if the IST requirements for setting the valves to within 1% of the setpoint are due, there is no basis for entering Mode 3 without first verifying the Operability of the safety valves at normal operating temperature and pressure (perhaps bench testing with a suitable test rig is implied, as opposed to in-situ testing). Assuming the hot setting is required by the IST, and provided that the cold settings have been completed, the ITS note allows entry into Mode 3, but requires completing the hot settings within 54 hours following entery into Mode 3. This limited time period is sufficient to set the pressurizer safety valves under normal operating ambient conditions. Adoption of the STS allowance granted by this note constitutes a less restrictive change to the CTS. Comment: Revise the submittal by replacing DOC M17 with a less restrictive CTS change justification. In the response to this comment, describe current IST practices for cold and hot setting of the pressurizer safety valves and how they are consistent with the CTS requirements and whether any changes are needed to be consistent with the ITS requirements.

ComEd Response to Issue

Revised Response: Refer to CTS DOC 3.4-L38. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: DOC M17 will be changed to an 'L' DOC (less restrictive change), and will state, "CTS 3.4.2.2 Footnote * requires the pressurizer safety valve lift setting pressure correspond to ambient conditions of the valve at nominal operating temperature and pressure. The Applicability of the CTS requirement is in Modes 1, 2, and 3. Therefore, complying with the CTS, the lift setting must be set at operating temperature and pressure prior to entering Mode 3. The ITS LCO 3.4.10 LCO Note allows entry into Mode 3 with the lift settings outside the LCO limits. This permits testing and examination of the safety valves at high pressure and temperature near their normal operating range, but only after the valves have had a preliminary cold setting. This change represents a less restrictive change, and is consistent with NUREG-1431." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







09-Oct-98

NRC RAI Number	NRC Issued Date
110-03	3/9/98

RAI Status Closed

NRC Description of Issue

JFD P13 ITS 3.4.10 Applicability Note JFD BP13 Bases for Applicability of ITS 3.4.10, STS Bases markup page B 3.4-47

The ITS proposes to place the STS 3.4.10 Applicability Note with the LCO statement as an editorial enhancement to preclude misinterpretations of ITS SR 3.0.4. Staff disagrees with this technical basis. This difference is generic and should be submitted as a generic change to the STS. Comment: Withdraw this deviation from the STS, and adopt the STS format. This change occurs frequently in this submittal; thus the response to this comment should be global over the whole submittal. This comment likely occurs in other sections. A single response with references to it is acceptable.

ComEd Response to Issue

See ComEd Response to RAI 3.4.1-04. (See RAIs 3.1.5-01, 3.1.6-01, 3.4.1-04, and 3.4.12-01 Item b.)

NRC RAI Number NRC Issued Date 3.4.10-04

3/9/98

RAI Status Closed

NRC Description of Issue

JFD P33 ITS SR 3.4.10.1 JFD BP38 Bases for ITS SR 3.4.10.1, STS Bases markup page B 3.4-48

ITS SR 3.4.10.1 omits the last sentence of STS SR 3.4.10.1, "Following testing, lift settings shall be within 1%", because the licensee believes the LCO and Bases are inconsistent. The staff disagrees. In addition, omission of this sentence from the STS would require a generic change. Comment: Revise ITS SR 3.4.10.1 to adopt the sentence omitted from STS SR 3.4.10.1.

ComEd Response to Issue

ComEd will revise ITS SR 3.4.10.1 to adopt the sentence omitted from STS SR 3.4.10.1. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL

NRC RAI Number	NRC Issued Date	RAI Status
3.4.10-05	3/9/98	Closed

NRC Description of Issue

DOC M17 JFD B43 ITS 3.4.10 Applicability Note

The Applicability note has been modified in the second sentence by identifying Mode 3 as the "normal operating temperature and pressure" where the lift settings are verified. The insertion of this text is redundant to the earlier sentence where the "ambient (hot) conditions" are discussed. These changes to the note are not accepted.

Note: This modification is also shown in CTS change with M17 DOC but is not separately identified. Comment: Revise the submittal to adopt the STS text of the Applicability Note.

ComEd Response to Issue

ComEd will revise the submittal to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







09-Oct-98

NRC RAI Number 3.4.11-01

NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue

DOC A10 JFD P14 DOC L8 JFD C12 CTS 3/4.4.4 Actions a through d ITS 3.4.11 Actions B, D, E, F, & G JFD BC13 Bases for ITS Required Actions D.1 and D.2. Insert B 3.4-54A, STS Bases markup page B 3.4-54

a. The Applicability of ITS 3.4.11 is Modes 1, 2, and 3, yet the action requirements never require exiting Mode 3 (RCS average temperature below 350 degrees Fahrenheit), only going to Mode 3 with RCS average temperature below 500 degrees Fahrenheit, which is addressed by DOC L8 and JFD C12, based on TSTF-113 which is still pending with the staff. This is illogical. Comment: Revise the submittal to adopt the STS shutdown requirements which are consistent with the CTS action requirements.

b. The submittal does not justify adding block valves to STS 3.4.11 Actions Note 1 and allowing separate Condition entry for inoperable PORVs and block valves. The reasons given in DOC A10 and JFD P14 are insufficient to justify these changes and differences. The licensee's perception stated in DOC A10 that separate Condition entry is the intent of the CTS action requirements is incorrect. Comment: Revise the submittal with a L-type technical justification for allowing separate Condition entry for the PORVs and associated block valves. Revise JFD P14 with a plant-specific justification for adding block valves to STS 3.4.11 Actions Note 1 allowing separate Condition entry. Otherwise, adopt the STS version of the note.

ComEd Response to Issue

ComEd Response to NRC Comment a: ComEd will revise the submittal to adopt the STS text and withdraw TSTF-113 from the submittal. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. ComEd Response to NRC Comment b: TSTF-247 revises NUREG LCO 3.4.11 to allow separate condition entry for each block valve, and thereby eliminating bracketed Required Action F.3. This change was proposed by Byron and Braidwood and has been approved by TSTF. LCO JFD 3.4-P14 will be revised to state, "NUREG and ITS LCO 3.4.11 allow separate condition entry for each PORV. The Conditions and Required Actions provide appropriate compensatory measures for separate condition entry. ITS has been modified to add the phrase. "Separate Condition entry is allowed for each PORV and each block valve." consistent with TSTF-247. In the event a PORV becomes inoperable and not capable of being manually cycled (Condition B), the Required Action is to close the associated block valve and remove power from the block valve within 1 hour. In accordance with the Bases, once power is removed from the block valve, it is no longer OPERABLE and Condition C is also entered. Per ITS Required Action B.3, the inoperable PORV is to be restored within 72 hours. Required Action C.2 requires the inoperable block valve to be restored to OPERABLE (restore power) within 72 hours. In the event the second PORV becomes inoperable, Condition E Required Actions require the associated block valve to be closed and power removed from the valve, rendering it inoperable. Condition B is re-entered for the second PORV. This results in 2 PORVs and 2 block valves inoperable and Condition F is entered for 2 inoperable block valves. If the first PORV is restored to OPERABLE, Condition E is exited, leaving Condition B entry for the second PORV with the remainder of its 72 hours available in order to restore it to OPERABLE status. However, without separate Condition entry for the block valves, the second PORV and associated block valve must be restored to OPERABLE within the initial 72 hour clock of the first block valve. If the second PORV and associated block valve are not restored within this initial 72 hours. Condition D is entered which requires the unit to be shutdown. As provided for the PORVs, the Conditions and Required Actions also provide appropriate compensatory actions for separate condition entry for each block valve. Thus, the Actions Note is modified to allow separate condition entry for each block valve." ComEd continues to pursue this change.





NRC RAI Number 3.4.11-02 NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC A1 CTS 4.4.4.1

The first phrase of CTS 4.4.4.1, "In addition to the requirements of the Specification 4.0.5, each PORV shall be demonstrated", has not been retained in the Surveillance Requirements of ITS 3.4.11. This omission is incorrectly categorized as an administrative change by DOC A1. It is a specific technical change which must be discussed and justified separately. Comment: Revise the submittal with a technical justification for this CTS change.

ComEd Response to Issue

DOC A33 was created to discuss CTS Specification 4.0.5 relocation. DOC A33 states. "CTS Specification 4.0.5 provides surveillance requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components. In accordance with NUREG-1431, CTS Specification 4.0.5 has been relocated to ITS Specification 5.5.8. "Inservice Testing Program." The requirements for Inservice Testing have not changed and are still consistent with ASME Section XI. The requirements for the Inservice Inspection are contained in 10 CFR 50.55a and therefore not included in the NUREG. This change has been justified in the ITS submittal as an administrative change throughout the CTS markups since no ASME or CTS Inservice Testing requirements were changed. The only change that was made was in relocation of the requirements from CTS 4.0.5 to ITS 5.5.8." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4.12-07.)

NRC RAI Number	NRC Issued Date	RAI Status
5.4.11-03	3/9/98	Closed

NRC Description of Issue

JFD BP3

Bases Background discussion for ITS 3.4.11, STS Bases markup page B 3.4-50

The ITS Bases do not adopt the words which state normal power is "from the vital buses from offsite sources but are capable of being powered from emergency power sources" in the fifth paragraph of the Bases Background discussion for STS 3.4.11. This omission appears to contradict the discussion about PORV power sources in JFD. The proposed omission and related editorial changes result in misleading the reader into thinking that the PORVs only have emergency power sources. Comment: Revise the Bases of ITS 3.4.11 to conform to the STS Bases consistent with plant design.

ComEd Response to Issue

ComEd will revise the Bases of ITS 3.4.11 to conform to the STS Bases. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL.



NRC RAI Number 3.4.11-04 NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue

DOC LA8 CTS SR 4.4.4.1.a

The licensee proposes to move the CTS requirement for Channel Calibration of the PORV actuation instrumentation to the TRM, but does not fully explain why specifying this requirement in TS is not necessary to ensure Operability of the PORV actuation instrumentation or how the retained surveillances ensure the Operability of this instrumentation. Comment: Revise DOC LA8 to address the concerns noted.

ComEd Response to Issue

ComEd will revise the ITS submittal to reflect our proposed resolution to the "Spurious SI at Power" issue. The CTS License Amendment Request (LAR) is expected to be docketed by April, 30, 1998. An ITS Revision incorporating the CTS LAR will be submitted subsequently.



09-Oct-98

NRC RAI Number 3.4.12-01

nber NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue

DOC M7 JFD P11 JFD P19 JFD P21 JFD C9 (WOG 51); C15 (WOG 81) ITS 3.4.12; LCO. Actions A thru D. and SRs CTS 3/4.4.9.3; CTS 3/4.5.3; CTS 3/4.5.4.1 and CTS 3/4.5.4.2

ITS 3.4.12 and associated Bases contain extensive deviations from STS 3.4.12.

a. JFD P11 applies to differences from the STS LCO. Applicability, Actions, and SRs so that the ITS properly specify the plant specific limitations of the Byron and Braidwood LTOP system analysis. Comment: Revise JFD P11 to explain how each limitation given in the CTS has changed. Also explain how each corresponding limitation proposed in the ITS reflects those changes or reflects an additional limitation based on the LTOP analysis. List each specific limitation from the LTOP analysis and the corresponding limitation in the ITS - refer to each specific ITS 3.4.12 requirement. The foregoing request is made to facilitate verification by the staff that the proposed requirements are appropriate and consistent with the LTOP analysis.

b. JFD P19 incorporates the Applicability Note into the LCO, which is an unacceptable type of STS generic change proposal common to this submittal. Comment: Revise the submittal to adopt the STS presentation of the note in the Applicability.

c. Deviations to the Applicability based on JFD C9 (WOG 51) and C15 (WOG 81) are rejected. Comment: Revise ITS 3.4.12 to adopt the STS Applicability requirements consistent with plant design and current licensing basis.

d. JFD P21 applies to the notes to the SRs.

The note to ITS SR 3.4.12.2 appears generic, not plant specific. Thus it is rejected.

• The note to ITS SR 3.4.12.3 is related to the generic movement of the Applicability note to the LCO; thus it is also generic. This note is rejected.

• The note to ITS SR 3.4.12.5 is unnecessary since it only applies to RHR suction valves associated with "required" RHR suction relief valves. It is also generic. This note is rejected.

• The note to ITS SR 3.4.12.6 is unnecessary since it only applies to PORV block valves associated with each "required" PORV. It is also generic. This note is rejected.

Comment: Revise the above SRs by withdrawing the proposed notes.

e. DOC M7 collectively justifies the changes to the CTS corresponding to the proposed STS deviations noted above and which are considered unacceptable. Comment: Revise DOC M7 as appropriate to be consistent with the resolution of the preceding comments.

ComEd Response to Issue





09-Oct-98

be met in MODE 3 prior to entering MODE 4. Verifying the accumulator isolated is not a requirement of the LCO unless the accumulator pressure is greater than or equal to the maximum RCS pressure for the existing RCS cold leg temperature allowed by the P/T limit curves. Therefore, ComEd believes that the use of the "met" Note is justifiable and necessary to reflect the requirements of ITS LCO 3.4.12 and SR 3.4.12.3. ComEd Response to NRC Comment e: ITS LCO 3.4.12 requires accumulator isolation whenever accumulator pressure is greater than or equal to the maximum RCS pressure for the existing cold leg temperature allowed in the PTLR, no safety injection pumps capable of injecting into the RCS, and a maximum of one charging pump (centrifugal) capable of injecting into the RCS. As DOC 3.4-M7 states, CTS LCO 3.4.9.3 does not include requirements for overpressure protection associated with an SI pump capable of injecting into the RCS. However CTS 3.5.3.a footnote (ITS LCO 3.4.12 item a) and CTS SR 4.5.3.2 (ITS LCO 3.4.12 item b) contain these same requirements, but the requirements have been moved to the LTOP specification (ITS LCO 3.4.12) in ITS. As DOC 3.4-M7 also states, CTS LCO 3.4.9.3 does not include requirements for an unisolated accumulator whenever accumulator pressure is greater than or equal to the maximum RCS pressure is greater than or equal to the maximum RCS. However CTS 3.4.9.3 does not include requirements for an unisolated accumulator whenever accumulator pressure is greater than or equal to the maximum RCS pressure for the existing cold leg temperature allowed in the PTLR. Therefore, ITS LCO 3.4.12 item is a more restrictive requirement as discussed in DOC 3.4-M7. Even with the changes discussed above in ComEd's Responses to NRC Comments a-d, DOC 3.4-M7 justification still remains valid and unchanged.

NRC RAI Number	NRC Issued Date	RAI Status	
3.4.12-02	3/9/98	Closed	

NRC Description of Issue

ITS SR 3.4.12.2

The JFD P11 discussion states that the positive displacement charging pump is not allowed to be capable of injection during the LTOP conditions. Periodic verification that this is so is required by ITS SR 3.4.12.2. Neither this SR nor the Bases for ITS 3.4.1.2, however, specifically mention the positive displacement pump. Note that ITS SR 3.4.12.1 specifically requires verifying the incapability of the SI pumps to inject into the RCS. Comment: Revise ITS SR 3.4.12.2 and appropriate parts of the Bases for ITS 3.4.12 to specifically address the positive displacement charging pump to make it unambiguous that these requirements and associated Bases apply to it.

ComEd Response to Issue

No change. LCO 3.4.12 item a and SR 3.4.12.2 added "(centrifugal)" to clarify that the Positive Displacement Pump (PDP) is not allowed to be capable of injection during the LTOP conditions. Because this is Byron/Braidwood current licensing basis and has been adequately addressed in training. ComEd does not believe it cost or time beneficial to revise the submittal to incorporate this change.

09-Oct-98

NRC RAI Number 3.4.12-03

nber NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue DOC A20

DOC L10 JFD P38 JFD BP50 CTS 3/4.4.9.3 Action d CTS 4.4.9.3.1.a ITS SR 3.4.12.4 and SR 3.4.1.2.7

a. With the RCS vented per Actions a. b. or c, CTS 3/4.4.9.3 Action d requires verifying every 31 days that the RCS vent path is open. This action requirement is retained (per DOC A20) as ITS SR 3.4.12.4 which contains a note, that for the most part is consistent with the note to corresponding STS SR 3.4.12.5. The ITS note states this verification is only needed when the RCS vent path is relied upon for pressure relief per compliance with ITS LCO 3.4.12.d.4. As discussed by JFD P38, the ITS note replaces the STS note words "only required to be performed" with"only required to be met." (Note that the CTS markup, insert 3.4-39c and DOC A20, mistakenly shows the ITS note as replacing the STS words with the words "only required.") Comment: The concerns expressed in JFD 38 regarding "met" versus "performed" are not valid; this difference would represent a generic change to the STS, as apparently addressed by WOG-87. Revise the note to ITS SR 3.4.12.4 to adopt the words of the corresponding STS note. Also, adopt the affected wording of the STS Bases. Finally, correct the CTS markup error noted above.

b. When the PORVs are being used for cold overpressure protection, CTS 4.4.9.3.1.a requires performance of an Analog Channel Operational Test (ACOT) on the PORV actuation channel every 31 days. ITS SR 3.4.12.7 retains this CTS test requirement and clarifies, per DOC L10, when it is required with a note, that for the most part is consistent with the note in corresponding STS SR 3.4.12.8. The ITS note replaces the STS words "not required to be met" with "not required to be performed" as discussed in JFD 38. Comment: The concerns expressed in JFD 38 recording "met" versus "performed" are not valid: this difference would represent a generic change to the STS, as apparently aduressed by WOG-87. Revise the note to ITS SR 3.4.12.7 to adopt the words of the corresponding STS note. Also, adopt the affected wording of the STS Bases.

ComEd Response to Issue

ComEd Response to NRC Comment a: Per ComEd Response to NRC Comment d for RAI 3.4.12-01, SR 3.4.12.2 Note will be deleted based on withdrawing WOG-51, Revision 1. SR 3.4.12.4, SR 3.4.12.5, and SR 3.4.12.6 Notes will be deleted due to being redundant to the use of the word "required" in the SRs themselves. Therefore, CTS Insert 3.4-39C and DOC 3.4-A20 will be deleted as well. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.4.12-01 and 3.4.12-04.) ComEd Response to NRC Comment b: "Not required to be met ..." is more restrictive than "Not required to be performed" Since CTS SR 4.4.9.3.1.a does not contain a "SR 3.0.4 is not applicable" allowance. ComEd cannot justify the use of the "met" Note. By allowing SR 3.4.12.7 to not be "met," the unit would be allowed to enter the mode of applicability with the required PORV(s) knowingly not being able to pass a COT surveillance. ComEd believes that this is not the intent of ITS. Furthermore, this is not an allowance in CTS. The unit should have every confidence that the PORV is operaole and would pass the Channel Operational Test if performed, but it is not required to be "performed" due to unit conditions. Therefore, the Note should read only "not required to be performed...." ComEd continues to pursue this change.



09-Oct-98

NRC	RAI	Number

3.4.12-04 3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

JED P21 ITS SR 3.4.12.2, SR 3.4.12.5 and SR 3.4.12.6 STS SR 3.4.12.2, SR 3.4.12.4, and SR 3.4.12.6

The listed STS SRs do not contain the notes included in the corresponding ITS SRs, as described in the following, and somewhat in JFD 21.

The note to ITS SR 3.4.12.2 states that the verification that no SI pumps are capable of injecting into the RCS is 'not required to be met during [SI] pump swap operation. This is a new SR to ensure compliance with new LCO 3.4.12.b. as discussed in DOC M.7. However, the note is not technically justified or even discussed in DOC M.7. Thus, it may be a valid plant-specific difference from the STS. Unfortunately, JFD P21 doesn't justify it either.

. The note to ITS SR 3.4.12.5 states that the verification that RHR suction valves are open for each required RHR suction relief path is "only required to be met when complying with LCO 3.4.12.d.2 [two RHR suction relief valves providing the pressure relief capability] or LCO 3.4.12.d.3 [one PORV and one RHR suction relief valve providing the pressure relief capability]." This SR retains the requirements of CTS 4.4.9.3.2, and ensures compliance with LCO 3.4.12.d.2 or LCO 3.4.12.d.3, as applicable.

. The note to ITS SR 3.4.12.6 states that the verification that each PORV block valve is open for each required PORV is "only required to be met when complying with LCO 3.4.12.d.1 [two PORVs providing the pressure relief capability] or LCO 3.4.12.d.3. This SR retains the requirements of CTS 4.4.9.3.1.c, and ensures compliance with LCO 3.4.12.d.1 or LCO 3.4.12.d.3, as applicable.

The CTS markup does not appear to justify these notes. Also, JFD 21 is not accepted because it represents a generic editorial change to the STS, and is unnecessary. Comment: (1) Technically justify the note to ITS SR 3.4.12.2 on a plantspecific basis, or withdraw it making appropriate charges. (2) Revise the submittal to withdraw the other notes making appropriate changes to the DOCs, JFD 21, and Bases. The response to this comment may be combined with the response to similar comment 3.4.12-01. Note, the proposed generic changes represented by these notes are related to WOG-100.

ComEd Response to Issue

Per ComEd Response to NRC Comment d for F.AI 3.4.12-01, SR 3.4.12.2 Note will be deleted based on withdrawing WOG-51, Revision 1 (not WOG-100). SR 3.4.12.4, SR 3.4.12.5, and SR 3.4.12.6 Notes will be deleted due to being redundant to the use of the word "required" in the SRs themselves. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.4.12-01 and 3.4.12-03.)

NRC RAI Number 3.4.12-05

NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue Not used

ComEd Response to Issue No response required.





09-Oct-98

NRC RAI Number 3 4.12-06 RAI Status Closed

NRC Description of Issue

CTS 4.4.9.3.2, item a and b STS SR 3.4.12.4 ITS SR 3.4.12.5

CTS 4.4.9.3.2 item a and b require that at least once every 72 hours that the RHR suction valves are verified to be open. ITS SR 3.4.12.5 retains this verification requirement, including the 72-hour Frequency. Corresponding STS SR 3.4.12.4, however, requires this verification every 12 hours. The ITS Bases justifies the 72-hour Frequency using the STS Bases' justification for the 12 hour Frequency; how can that be acceptable? In addition, the Frequency should be consistent with the Frequencies of similar verifications of RHR loop Operability specified by ITS SR 3.4.6.1, ITS SR 3.4.7.1, and ITS SR 3.4.8.1. Each of these require that the required RHR loops be verified as Operable and/or in operation every 12 hours. Operable means to verify the position of valves in the flow path which is the same check required by ITS SR 3.4.12.5. Comment: Revise the submittal to adopt the STS Frequency of 12 hours and add a justification for this more restrictive surveillance interval. The requirements in the ITS for RHR system ought to be as consistent as are the corresponding requirements in the STS.

ComEd Resporse to Issue

No change. Verifying that the RHR suction relief valves are open at least once per 72 hours is current licensing basis. Furthermore, STS SR 3.4.12.4 is a bracketed surveillance, whereby in the conversion to ITS the utility adds their plant specific value. ComEd continues to pursue the 72 hour frequency of our current licensing basis.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.12-07	3/9/98	Closed

NRC Issued Date

3008

NRC Description of Issue



DOC A1 JFD BP1 CTS 4.4.9.3.2.c ITS SR 3.4.12.5 STS SR 3.4.12.4

CTS 4.4.9.3.2.c requires for the RHR suction relief valves "Testing pursuant to Specification 4.0.5." The ITS apparently does not retain this specific requirement.

Also, the Bases of ITS SR 3.4.12.5 does not adopt the text regarding IST contained in the Bases discussion for corresponding STS SR 3.4.12.4. This change and difference are not editorial but are less restrictive technical CTS changes which require a separate justification. Comment: Revise the submittal with additional technical justification for deleting the IST program CTS requirements for RHR relief valves. Why is there no SR for testing in accordance with the IST Program for these valves? See comment 3.4.12-11.

ComEd Response to Issue

DOC A33 was created to discuss CTS Specification 4.0.5 relocation. DOC A33 states, "CTS Specification 4.0.5 provides surveillance requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components. In accordance with NUREG-1431, CTS Specification 4.0.5 has been relocated to ITS Specification 5.5.8, "Inservice Testing Program." The requirements for Inservice Testing have not changed and are still consistent with ASME Section X1. The requirements for the Inservice Inspection are contained in 10 CFR 50.55a and the effore not included in the NUREG. This change has been justified in the ITS submittal as an administrative change throughout the CTS markups since no ASME or CTS Inservice Testing requirements were changed. The only change that was made was in relocation of the requirements from CTS 4.0.5 to ITS 5.5.8." In addition, ComEd will revise the Bases for ITS SR 3.4.12.5 to adopt the STS text stating, "The ASME Code, Section XI (Ref. 7), test per Inservice Testing Program verifies OPERABILITY by proving proper relief valve mechanical motion and by measuring and, if required, adjusting the lift setpoint." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4.11-02.)



NRC RAI Number 3.4.12-08

NRC Issued Date

3 9 98

RAI Status Closed 09-Oct-98

NRC Description of Issue

JFD P20 CTS 3/4.4.9.3 Action f ITS 3.4.12 Actions Note

CTS 3/4.4.9.3 Action f states "The provisions of Specification 3.0.4 are not applicable." Since CTS 3/4.4.9.3 only addresses the RHR suction relief valves and the PORVs, it appears that this Mode-change restiction exception is retained as the Actions Note to ITS 3.4.12. This Actions Note states "LCO 3.0.4 is not applicable to the RCS relief valves." Based on maintaing the CTS allowance, this appears acceptable. This note does not address the RCS vents. The STS, however, does not contain this note. JFD 20 does not adequately explain why it is acceptable to enter into the Applicability of ITS 3.4.12 without first verifying the Operability of the RCS relief valves that are to be relied upon for overpressure protection. The statement in JFD P20 and the Bases for this note, that the Required Actions for inoperable relief valves provide an acceptable level of safety, is not convincing. In Mode 4. Action E allows 7 days to restore an inoperbale relief valve. In Mode 5 and Mode 6 with the vessel head on, Action F allows 24 hours. And in any of these Modes. Action G allows 8 hours to restore two inoperable relief valves. For any of these conditions and failure to satisfy these Actions, Action G requires depressuring the RCS with an open RCS vent. These Completion Times are consistent with the STS. Yet the STS does not allow an exception to LCO 3.0.4. Comment: Please revise the submittal to provide additional discussion and technical justification for the Actions note.

ComEd Response to Issue

CTS 3.4.9.3 requires at least two overpressure protection devices to be OPERABLE, either an RHR suction relief valve or a PORV, in Modes 4, 5, and 6 with the reactor vessel head on. In the event that one or both required devices are inoperable, the CTS provides specific actions with Completion Times ranging from 8 hours to 7 days. The CTS also contains Action f which states. "The provisions of Specification 3.0.4 are not applicable." Action f allows changing Modes without having the overpressure protection devices OPERABLE. As previously stated, the inoperability can range from 8 hours to 7 days. The CTS actions also require that the inoperable device(s) be returned to OPERABLE or an RCS vent be established (at least 2 square inch vent) within the next 8 hours. STS LCO 3.4.12 requires the same pressure relief capabilities be OPERABLE in the same Modes as the CTS. The STS however, adds the RCS vents to the LCO as one of the pressure relief capabilities. In addition, the STS does not allow any LCO 3.0.4 exceptions. Therefore, the pressure relief capabilities required by the LCO must be OPERABLE for any mode changes to occur. The ITS Note is being revised to state, "LCO 3.0.4 is not applicable to the RCS pressure relief capabilities." Adding this Note brings the ITS into compliance with our current licensing basis. ComEd believes this to be acceptable since the ITS Required Actions and associated Completion Times are the same as those in the CTS. Therefore, there is no change in any assumptions, calculations or equipment between our current licensing basis and the ITS. Thus, no increase in any probability of any accident previously analyzed, no new or different accident introduced. and crease in the margin of safety. Based on the above, ComEd will continue to pursue and maintain our current licensing basis by retaining the Actions Note as revised by this RAI. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd responses to the ITS Section 3.4 RAL
09-Oct-98

NRC RAI Number 3.4.12-09

NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue

JFD P1 Bases JFD P1 ITS LCO 3.4.12

The initial words of ITS LCO 3.4.12 differ from the STS as follows: "An LTOP System shall be OPERABLE provided with:" This difference is not editorial because LTOP is apparently no longer considered a system and it no longer requires an Operability requirement. The first part should closely follow the STS wording, as follows: "An LTOP System shall be OPERABLE with:" Comment: The proposed editorial difference from the STS is not justifiable on a plant-specific or editorial basis. Revise the LCO to adopt the suggested words and make appropriate language changes in the Bases to conform to the STS.

ComEd Response to Issue

ComEd will revise the LCO to adopt the suggested words and make appropriate language changes in the Bases to conform to the STS. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.12-10	3/9/98	Closed

NRC Description of Issue Not Used

ComEd Response to Issue No response required.



NRC RAI Number 3.4.12-11

RAI Status

Closed

NRC Description of Issue

JFD B2 Bases JFD B2 STS SR 3.4.12.7 Bases Background discussion for suction relief valve requirements. STS markup page B 3.4-60 Bases JFD P31

NRC Issued Date

3 9 98

ITS does not adopt STS SR 3.4.12.7, verification that each required open RHR suction isolation valve is locked open with power removed (apparently needed when the associated RHR relief valve is used to satisfy the LCO for overpressure protection). JFD B2 and JFD Bases B2 are not detailed enough to determine the validity of this omission. Comment: Revise the submittal with plant-specific technical justification for this deviation from the STS. The CTS markup page 3.4.5-5 indicates that CTS 4.5.2.d.1) is retained as ITS SR 3.4.14.2. The NRC staff understands that the RHR suction valve autoclosure is no longer a part of the unit design. Note - the absence of the autoclosure feature from the unit design was discussed with Kelly Root of Braidwood on 2/13/98 by telcon. However, the information in the submittal does not clearly explain why this design difference necessitates deviations from the STS; niether does it clearly list all such deviations. Note - Bases JFD P31 contradicts the preceding stated staff understanding about the autoclosure interiock; JFD P31 states it is a part of the unit design as described in FSAR Section 5.4.7.2.3, but is controlled by procedure. If it is part of the unit design, then the STS provisions related to it and associated Bases ought to be adopted to ensure the Operability of the RHR relief valves when they are relied upon for RCS overpressure protection to meet ITS LCO 3.4.12. Note FSAR Section 5.4.7.2.3 was reviewed and it supports the absence of the autoclosure interlock from the design. Suggest that JFD P42 be revised to also address not adopting STS SR 3.4.12.7.

ComEd Response to Issue

No change. NUREG SR 3.4.12.7, SR 3.4.14.2, and SR 3.4.14.3 are bracketed surveillances. ComEd believes that LCO JFDs 3.4-B2 and 3.4-B3 are sufficient for justifying the deletion of information that is not applicable to Byron and Braidwood, and that this approach is consistent with conversion guide ines and the process used throughout the submittal. ComEd agrees that Bases JFD 3.4-P31 is incorrect in stating that an at toclosure interlock is provided. Bases JFD 3.4-P31 will be revised to state, "NUREG-1431 SR 3.4.14.3 and associated Bases have been deleted and the Bases for both LCO 3.4.12 and LCO 3.4.14 are revised to omit references to the autoclosure interlock. Only the open permissive interlock function is included. This is consistent with CTS SR 4.5.2.d.1 and NRC SER dated 8/31/90 for Amendment 38/25. The interlock is discussed in UFSAR Section 5.4.7.2.3." This JFD discussion is based on the following excerpt from UFSAR Section 5.4.7.2.3, "During plant startup, the inlet isolation valves are shut administratively. However, an alarm is provided to alert the operator in the event that double isolation is not being maintained when RCS pressure increases above 400 psig. These isolation valves are provided with "prevent-open" interlocks, which are designed to prevent possible exposure of the RHR System to normal RCS operating pressure. ... The use of two independently powered motor-operated valves in each of the two inlet lines, along with two independent pressure interlock signals in the opening and alarm circuitry ensures a design which meets applicable single failure criteria." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







NRC RAI Number

3.4.12-12

RAI Status

Closed

NRC Description of Issue

LA14 CTS 4.5.4.2.1 (Note - this is the principal reference for this comment.) CTS 4.5.4.1 and associated Note * CTS 3.5.4.1 CTS 3/4.5.4.1 Action CTS 4.5.3.2 ITS SR 3.4.12.1 Bases for ITS 3.4.12

NRC Issued Date

3/9/98

CTS 4.5.4.2.1 requires at least one SI pump shall be demonstrated available when required every 12 hours. ITS SR 3.4.12.1 verifies no SI pump is capable of injecting into the RCS. These two SRs do not appear to be equivalent, but this is implied by the CTS markup, page 3/4 5-10. Also, the discussion in DOC LA14 only supports removing details about restricting sources of high pressure water injection into the RCS. This change, however, removes details related to the Operability of required SI pump and associated flow path from the RWST to the RCS. Further, the discussion in DOC LA14 does not specifically address (or list) CTS 4.5.4.2.1, so there is a question about whether it applies to the detail removal as indicated in the CTS markup. A new CTS DOC seems to be required to justify the removing the details of CTS 4.5.4.2.1 to the Bases. Comment: Revise the submittal with the indicated technical justification. In addition, state where the information, as indicated by the markup of CTS 4.5.4.2.1, is contained in the ITS Bases.

ComEd Response to Issue

JFD 3.4-LA14 will be revised to add a paragraph which states. "CTS LCO 3.5.4.2 establishes controls which ensure that diverse means of introducing makeup water from the RWST to the RCS are available in the event that a loss of inventory or loss of forced circulation occurs which results in a loss of decay heat removal. The LCO requires a Safety Injection (SI) pump and flow path or an adequate RCS vent to allow gravity feed from the RWST to be available when in Mode 5 and 6 with the pressurizer level less than or equal to 5 percent. These requirements were added in response to Generic Letter (GL) 88-17, "Loss of Decay Heat Removal." This Specification does not satisfy the Technical Specification Screening Criteria (see ITS Section 3.5 DOC R1). However, CTS SR 4.5.4.2.1 also provides Low Temperature (cold) Overpressure Protection (LTOP) from inadvertent SI actuation as indicated in the SER for Byron/Braidwood Amendment 38/25, Section 2.2 dated August 31, 1990. This portion of the requirements is retained in ITS SR 3.4.12.1. The detail of demonstrating the availability of the SI pump is relocated to the TRM. The relocation of this information maintains the consistency with NUREG-1431. Any change to this requirement is made in accordance with 10 CFR 50.59." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







09-Oct-98

NRC RAI Number 3.4.12-13 NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC LA25 CTS 3/4.4.9.3 Action e

CTS 3/4.4.9.3 Action e, requires a report to the NRC in the event the specified pressure relief valves are used to mitigate an RCS pressure transient, pursuamt to CTS 6.9.2. This Action is not retained in ITS 3.4.12, but is moved to the TRM. The justification in DOC LA25 states it is acceptable to relocate this requirement to the TRM because the Special Report is not approved by the NRC. Staff disagrees. The only acceptable basis for this relocation is whether there exists any redundancy in regulatory requirements which control the preparation and submittal of the event reports to the NRC. Comment: Revise the submittal to provide additional technical justification for moving this reporting requirements, and show that the submitted justifications are consistent with the acceptable basis noted above. (I.e., this may be a global comment.)

ComEd Response to Issue

No response required

ComEd will revise DOC LA25 to state, "CTS 3.4.9.3.e provides a requirement to submit a Special Report in accordance with CTS Specification 6.9.2 in the event that the PORVs, the RHR suction relief valves, or the RCS vents are used to mitigate an RCS pressure transient. This requirement is to be relocated to the TRM. Relocating this requirement to the TRM is consistent with other required reports in the CTS. As discussed in Section 5.0, DOC A12, CTS Specification 6.9.2 has been revised to delete the reference to the submittal location for the Special Reports. The requirements related to report submittal are contained in 10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73. Since conformance to 10 CFR 50 is a condition of the license, specific identification of this requirement in the TS would be duplicative and is not necessary. In addition, the Special Reporting requirements are deleted from the STS since they do not meet 10 CFR 50.36(c)(2)(ii) criteria for retention in the TS. As such, the relocated requirement is not required to be in the TS to provide adequate protection of the public health and safety. The relocation of this requirement maintains the consistency with NUREG-1431. Any changes to this requirement will be made in accordance with 10 CFR 50.59." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.12-14	3/9/98	Closed
NRC Description of Ist Not used	sue	
ComEd Response to Is	sue	
No response required.		
NRC RAI Number	NRC Issued Date	RAI Status
3.4.12-15	3/9/98	Closed
NRC Description of Iss	sue	
Not used		
ComEd Response to Is	sue	

NRC RAI Number 3.4.12-16

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

Not used

ComEd Response to Issue

No response required.

NRC RAI Number 3.4.12-17

NRC Issued Date 3/9/98

RAI Status Closed

RAI Status

Closed

NRC Description of Issue

Bases JFD P1 Bases for ITS SR 3.4.12.7, STS markup page B 3.4-71

The second paragraph of the Bases for STS SR 3.4.12.8 has not been adopted in the Bases for corresponding ITS SR 3.4.12.7. This omission is not explicitly justified.

Comment: Revise the submittal to adopt the omitted paragraph.

ComEd Response to Issue

ComEd will revise the submittal to adopt the omitted paragraph. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number 3.4.13-01

NRC Issued Date 3/9/98

NRC Description of Issue

Not used ComEd Response to Issue

No response required.







09-Oct-98

NRC RAI Number 3.4.13-02

NRC Issued Date 3/9/98 RAI Status

Closed

NRC Description of Issue

DOC LA24 CTS 4.4.6.2.1.a. b. and e

CTSs 4 4 6 2.1 a, b, and e require monitoring the containment atmosphere radiation monitor, the reactor cavity sump discharge, and the containment floor drain sump discharge and inventory at least once per 12 hours, and the reactor head flange leakoff system at least once per 24 hours. DOC LA24 states these surveillances are relocated to the TRM because they are not necessary to ensure RCS operational leakage is maintained within limits. This is not a sufficient technical justification. Comment: Revise DOC LA24 with additional technical justification for moving these SRs to the TRM. Describe how the ITS will ensure RCS operational leakage is maintained within limits.

ComEd Response to Issue

ComEd will revise DOC LA24 to state, "CTS SR 4.4.6.2.1.a, SR 4.4.6.2.1.b, and SR 4.4.6.2.1.e provide requirements for monitoring the containment atmosphere radioactivity, reactor cavity sump discharge, the containment floor drain sump discharge, and inventory, and the reactor head flange leakoff. These requirements are being relocated to the Technical Requirements Manual (TRM). These requirements, along with other ITS requirements, provide monitoring functions for indicating RCS Operational Leakage. These specific requirements do not meet the 10 CFR 50.36(c)(2)(ii) criteria for retention in the STS and therefore the ITS. However, their function provides an additional and independent operational indicator for RCS leakage and needs to be retained in a Licensee Controlled Document. The requirements of ITS LCO 3.4.13 provide adequate assurance that RCS Operational Leakage is maintained within the required limits. The relocated information is not necessary to be in ITS to ensure RCS Operational Leakage is within limits. As such, the relocated information is not required to be in the ITS to provide adequate protection of the public health and safety. The relocation of these requirements maintains the consistency with NUREG-1431. Any change to these requirements will be made in accordance with 10 CFR 50.59." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.13-03	3/9/98	Closed

NRC Description of Issue

Bases JFD P1 Bases for STS 3.4.13 Action B, STS markup page B 3.4-76

The first paragraph, second sentence of the Bases for Required Actions B.1 and B.2 is not adopted. The following is not retained: "It should be noted that LEAKAGE past seals and gaskets is not pressure boundary LEAKAGE." Bases JFD P1 does not explain why this statement is not applicable to Byron & Braidwood. Comment: Revise the submittal to adopt the omitted sentence, which is generally applicable to Westinghouse 4-loop design.

ComEd Response to Issue

ComEd will revise the submittal to adopt the omitted sentence. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







NRC RAI Number 3.4.13-04 NRC Issued Date

RAI Status

Closed

NRC Description of Issue

Bases JFD P43 Bases for SR 3.4.13.1, STS markup page B 3.4-77

The fourth paragraph of the Bases discussion of STS SR 3.4.13.1 is not adopted. This text clearly explains that the leakage monitoring requirements of CTS 3/4.4.6.2 are now located in ITS 3.4.15 which is important information rather than just a cross reference in the Bases. This Bases text (and Comment number 3.4.13-02 above) denotes the importance of these monitors for the detection of reactor coolant system pressure boundary leakage and unidentified leakage. The omitted Bases text applies. Comment: Revise the Bases to adopt the omitted paragraph.

ComEd Response to Issue

ComEd will revise the Bases to adopt the omitted paragraph with one exception. The word "automatic" is being deleted since there is no automatic system associated with containment sump level. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number 3.4.14-01 NRC Issued Date

RAI Status Closed

NRC Description of Issue

JFD P41 ITS LCO 3.4.14 STS LCO 3.4.14 CTS 4.4.6.2.2

ITS LCO 3.4.14 states "Each RCS PIV shall be OPERABLE." STS LCO 3.4.14 states "Leakage from each RCS PIV shall be within limits." JFD P41 states the revision is to reflect both the leakage requirements and the interlock functions requirements. This deviation from the STS is generic and is not justifiable on a plant-specific basis. Comment: Revise ITS LCO 3.4.14 to conform to STS LCO 3.4.14 when is consistent with CTS 4.4.6.2.2.

ComEd Response to Issue

ComEd will revise ITS LCO 3.4.14 to conform to STS LCO 3.4.14. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status	
3.4.14-02	3/9/98	Closed	

NRC Description of Issue JFD P46 ITS 3.4.14 Actions Note 2

ITS 3.4.14 Actions Note 2 differs from the STS note as indicated: "Enter applicable Conditions and Required Actions for systems if made inoperable by an inoperable PIV." Acceptance of this editorial deviation would require approval of a generic change to the STS addressing all applicable locations in the STS rather than sporadic changes here and there as implied by JFD P46. Besides, the STS presentation is clearer than the proposed deviation. Comment: Revise the Actions note to conform to the STS wording.

ComEd Response to Issue

The Note will be revised to adopt the STS wording. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. Note: This change is applicable to ITS LCOs 3.3.5, 3.3.6, 3.4.14, 3.6.2, 3.6.3, 3.7.7, 3.7.8, 3.8.1, 3.8.2, and 3.8.7. (See RAIs 3.6.2-02, 3.7.7-04, 3.7.8-06, and 3.8.1-22.)



09-Oct-98

09-Oct-9?

NRC	RAI Number	
3	4.14-03	

3/9/98

RAI Status Closed

NRC Description of Issue

JFD B1 JFD B2 ITS 3.4.14 Action A Note STS 3.4.14 first alternative Required Action A.2 (bracketed)

NRC Issued Date

ITS 3.4.14 Action A Note has adopted the bracketed phrase "[or the high pressure portion of the system]" in the STS Action A note. However the ITS does not adopt bracketed STS 3.4.14 first alternative Required Action A.2, pertaining to valves in the high pressure portion of the system. This is an inconsistent usage of the STS. If ComEd does not used the first alternate. then this bracketed phrase in the note cannot be adopted. Comment: Revise the submittal to correct this STS technical usage error.

ComEd Response to Issue

ITS 3.4.14 Required Action A Note has adopted the bracketed phrase "[or the high pressure portion of the system]" of the NUREG. ComEd will revise the submittal to adopt the bracketed first alternative specified in Required Action A.2 to make the ITS Note and the Required Actions consistent. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-04	3/9/98	Closed
NRC Description of Iss	ue	

JFD P1 ITS 3.4.14 Required Actions A.1 and B.1

ITS 3.4.14 Required Action A.1 differs from the STS by adding a "de-energized power operated" valve to the list of valve alternatives. And ITS 3.4.14 Required Action B.1 differs from corresponding STS 3.4.14 Required Action C.1 so only a "deenergized" valve is used instead of a closed manual or de-activated automatic valve. These are not editorial deviations but are technical deviations that are not justified by JFD P1. Comment: Revise the submittal to adopt the STS wording or add a JFD with an appropriate plant-specifc justification.

ComEd Response to Issue

Revised Response: Refer to LCO JFD 3.4-48. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will add an LCO JFD to justify this change. The JFD will state, "The references to "manual." "remote-manual," "power-operated," "check," and "automatic" is not consistent within the STS. Byron/Braidwood plant specific terminology distinguishes between the classification of valves designated as "power operated" and "automatic." Automatic valves refer to those valves that require a motive force to actuate, such as air or electric, and receive an automatic actuation signal. Automatic air operated valves and automatic electric operated valves fall into this category. Power operated valves, on the other hand, require a motive force to actuate, such as air or electric, but do not receive an automatic actuation signal. Air power operated valves and electric power operated valves fall into this category. Therefore, including the reference to "power operated" isolation valves reduces the potential for misinterpreting the requirements of the Required Action, while maintaining the assumptions of the accident analysis, and is consistent with plant specific terminology. The words "closed manual or deactivated automatic" have been deleted from NUREG Required Action (RA) C.1 due to those classifications of valves not being applicable to the penetrations with the RHR System suction isolation valves. With the RHR System suction isolation valve interlock function inoperable, ITS RA B.1 requires that the affected RHR suction penetration be isolated by at least one de-energized power operated valve, i.e., an RHR suction isolation valve." This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.6.3-07.)





09-Oct-98

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-05	3/9/98	Closed
NRC Description of Iss Not used	ue	
ComEd Response to Is: No response required.	sue	
NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-06	3/9/98	Closed
NRC Description of Iss	ue	
IFD PI		
CTS 4.4.6.2.2.b		

The Frequency Note Stating "Prior to entering Mode 2...." has been editorially changed in ITS SR 3.4.14.1 when the CTS/STS wording for this statement is identical. Comment: Please revise the submittal. The STS text is applicable, clear. and should be adopted.

ComEd Response to Issue

ITS SR 3.4.14.1

No change. While ComEd agrees that the NUREG text is clear as written, it is not standard ITS format to use "words" in place of equalities and inequalities in ITS. A phrase such as "7 days or more" is not used anywhere else in the NUREG and therefore. ComEd continues to pursue this change for consistency throughout ITS.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-07	3/9/98	Closed

NRC Description of Issue

JFD P1 CTS 3.4.6.2.f footnote * ITS SR 3.4.14.1 Bases for STS LCO 3.4.14, STS markup page B 3.4-81

In ITS SR 3.4.14.1, the test pressure for PIV leakage testing differs from the STS requirement because it specifies an "equivalent" RCS pressure for testing PI'/s. CTS 3.4.6.2.f footnote *, which pertains to defining the equivalent pressure for PIV testing, is moved to the TRM, as explained by DOC LA10, because these details are not needed in the ITS. Note, however, that the last paragraph of the Bases for STS LCO 3.4.14 already contains the information specified by the CTS footnote. Comment: The addition of the modifier "equivalent" is an unnecessary generic change and is not accepted. Revise the submittal to adopt the STS wording. Revise DOC LA10 to explain that the allowance to use an equivalent pressure is moved to the Bases in addition to the TRM. Suggest augmenting the Bases for ITS SR 3.4.14.1 to explicitly discuss the testing at lower pressures; i.e., at equivalent pressures - scaling the leakage measured at a reduced pressure to the equivalent leakage at the specified test pressure for comparison to the specified leakage limit.

ComEd Response to Issue

DOC 3.4-LA10 will be revised to state, "CTS LCO 3.4.6.2, Footnote * provides details of Pressure Isolation Valve (PIV) test performance for various unit conditions. These details are to be relocated to the ITS Bases. The requirements of ITS SR 3.4.14.1, which include leakage limits stated in terms of equivalent leakage rates with a specified pressure range, are adequate to ensure RCS PIV leakage is within required limits. As a result, the relocated details are not necessary for ensuring RCS PIV leakage is within required limits and do not need to be included in the TS to provided adequate protection of the public health and safety. The relocation of these details maintains the consistency with NUREG-1431. Any change to these details will be made in accordance with the Bases Control Program described in ITS Section 5.5." In addition, the modifier "equivalent" will be withdrawn from ITS SR 3.4.14.1, and the ITS Bases will be revised to include the details associated with the CTS footnote. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.







09-Oct-98

NRC RAI Number 3.4.14-08 NRC Issued Date 3/9/98 RAI Status

Closed

NRC Description of Issue

JFD P26 ITS SR 3.4.14.1

ITS SR 3.4.14.1 omits the STS' requirement to perform PIV leakage testing at a Frequency in accordance with the Inservice Test Program. The ITS requiress the test to be performed at 18 month intervals but not per the IST Program. JFD P26 and Bases JFD P1 for SR 3.4.14.2 do not adequately justify this deviation. Comment: Revise ITS SR 3.4.14.1, and associated Bases, to adopt the STS Frequency of "in accordance with the Inservice Test Program."

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer, ComEd has adopted the NUREG Frequency for SR 3.4.14.1. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise ITS SR 3.4.14.1 Frequency to state. "In accordance with the Inservice Testing Program." The PIVs are tested in accordance with the Station's IST Program which was developed in accordance with ASME Section XI requirements. In addition, ComEd will delete the 18 month Frequency currently in ITS since the Inservice Testing Program Frequency is also 18 months. It is not standard NUREG format to include specific times with Frequencies which are in accordance with Programs, such as "In accordance with the Inservice Testing Program." There is no benefit in stating the same time Frequency for the same SR twice. ComEd will revise the ITS Bases for SR 3.4.14.1 to include the STS wording referencing the Inservice Testing Program. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL

ANC Issued Date	RAI Status
3/9/98	Closed
	3/9/98

NRC Description of Issue JFD P47 CTS 4.4.6.2.2.b ITS SR 3.4.14.1 Frequency

The wording of the third Frequency of ITS SR 3.4.14.1 differs from the STS. Instead of "Within 24 hours following ..., it says "Once within 24 hours after" Comment: These editorial changes are unnecessary and not justificable on an editorial or plant-specific basis. The STS wording is clear. Adopt the STS version of the Frequency.

ComEd Response to Issue

ComEd will adopt the STS version of the Frequency. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.1-01, 3.1.6-04, 3.6.3-09, 3.4.16-05, and 3.4.18-03.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-10	3/9/98	Closed
NRC Description of Iss	sue	

Not used

ComEd Response to Issue No response required.

09-Oct-98

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-11	3/9/98	Closed
NRC Description of Iss	sue	
Not used		
ComEd Response to Is	sue	
No response required.		
NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-12	3/9/98	Closed
NRC Description of Iss	ue	
-		

Bases JFD P1 Bases for ITS 3.4.14 Action Notes, STS markup page B 3.4-81

In the first paragraph, the fourth sentence the ITS differs from the STS as follows: "Note 2 requires an evaluation of affected systems Emergency Core Cooling System subsystems if a PIV is inoperable. The ITS wording appears to be less restrictive than the STS wording because some of these PIVs could also be considered to be in the CVCS or RCS Systems. Thus, this may not be just an editorial change, and may also be generic. Comment: Revise the Bases to adopt the STS wording.

ComEd Response to Issue

ComEd will revise the Bases to adopt the STS wording. This clange will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.14-13	3/9/98	Closed
NRC Description of Iss	sue	
Not used		
ComEd Response to Is	sue	
No response required.		

09-Oct-98

NRC RAI Number	NRC Issued Date
3.4.15-01	3/9/98

RAI Status Closed

NRC Description of Issue

DOC L17 DOC L19 JFD P27 JFD BP27 CTS 3.4.6.1.a and c CTS 3.4.6.1 Action c ITS 3.4.15 and Action B

CTS 3.4.6.1.a, b, and c define three separate RCS leakage system monitors as required to be Operable. Reg Guide 1.45 requires this number of diverse monitors and a minimum of two shall always be Operable. STS 3.4.15 contains provisions to ensure that two diverse monitors are Operable. ITS 3.4.15 and Action B have changed the CTS requirements to combine the separate gaseous and particulate monitoring functions into one monitor. The result is that when the one monitor is lost then both functions are lost. Also, the time permitted for this inoperable condition has been extended from 72 hours to 30 days with only the one sump monitor Operable during this period. For a 30 day period, when one of three are inoperable (if Condition B was changed to a gaseous or particulate monitor is inoperable) performing SR 3.4.13.1 is acceptable compensatory action. When two of the three (both gaseous and particulate functions) monitors are inoperable for a 30 day period, SR 3.4.13.1 or grab samples as the next monitoring system is not acceptable because the monitoring response times are greatly extended. This ITS Action B is contrary to the intent of Reg Guide 1.45. Comment: Please provide additional discussion and technical justification for this less restrictive change.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer, no change required.

Original Response: ComEd will rewrite ITS 3.4.15 to incorporate a Condition when one gaseous or particulate containment atmosphere radioactivity monitoring function is lost, and when both the gaseous and particulate containment atmosphere radioactivity monitoring functions are lost. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL

NRC RAI Number	NRC Issued Date	RAI Status
3.4.15-02	3/9/98	Closed

NRC Description of Issue

Not used

ComEd Response to Issue No response required.

09-Oct-98

NRC	RAI Number	
	3.4.15-03	

NRC Issued Date 3/9/98

RAI Status Closed

NRC Description of Issue

DOC LA9 CTS 3/4.4.6.1 Action a Bases for ITS 3.4.15 Action B, STS markup page B 3.4-89

CTS 3.4.6.1 Action a requires analysis of the containment atmosphere grab samples for gascous and particulate radioactivity. DOC LA9 says the specific requirement to analyze the grab samples for both particulate and gaseous activity is a detail which is moved to the ITS Bases. The Bases for ITS 3.4.15 Action B, however, only mentions taking grab samples, but does not describe the CTS requirement for analysis. Comment: Even though the proposed discussion in the Bases for ITS 3.4.15 Action B is consistent with the STS, it must be revised so that the statement in DOC LA9 is accurate.

ComEd Response to issue

The first paragraph of the Actions Section of the Bases for ITS LCO 3.4.15 for Actions B.1 and B.2 will be revised to state. "Either grab samples of the containment atmosphere must be taken and analyzed for gaseous and particulate radioactivity or water inventory balances, in accordance" This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status
3.4.16-01	3/9/98	Closed
NRC Description of Iss	sue	
Not used		
ComEd Response to is	sue	
No response required.		
NRC RAI Number	NRC Issued Date	RAI Status
3.4.16-02	3/9/98	Closed
NRC Description of Iss	ue	
Not used		
ComEd Response to Is	sue	
No response required.		
NRC RAI Number	NRC Issued Date	RAI Status
3.4.16-03	3/9/98	Closed
NRC Description of Iss	ue	
Not used		
ComEd Response to Iss	sue	

No response required.







NRC RAI Number 3.4.16-04

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

JFD P29 CTS Table 4.4-4 Measurement Type 3, Footnote * STS SR 3.4.16.3 and Note ITS SR 3.4.16.3 and Note

CTS Table 4.4-4 Measurement Type 3. Footnote * states the timing for the beginning of Frequency for when the E-bar determination is to be taken. STS SR 3.4.1.6.3 states this interval in both the Note and the SR 3.4.16.3. ITS SR 3.4.16.3 only states this timing in the Note. The change is not a plant specific change based upon a current CTS requirement. Comment: Revise the submittal to adopt the omitted text of STS SR 3.4.16.3.

ComEd Response to Issue

ComEd will revise the submittal to adopt the omitted text of STS SR 3.4.16.3. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RA1.

NRC RAI Number 3.4.16-05 NRC Issued Date 3/9/98 RAI Status Closed

NRC Description of Issue

JFD P47 Bases JFD P1 CTS Table 4.4-4, Measurement Type 4b STS SR 3.4.16.2 Frequency and associated Bases ITS SR 3.4.16.2 Frequency and associated Bases

In ITS SR 3.4.16.2, the word "once" is added to the STS Frequency which specifies a Frequency of "within" a particular time frame. For this Frequency, "within" is "between 2 and 6 hours after a Thermal Power change of 15% RTP within a 1 hour period." It is clear that the STS (and CTS) Frequency means once for each such power change. Also, the STS SR Frequency is worded the same as the wording of the Frequency for CTS Table 4.4-4 Measurement Type 4b. Comment: This generic editorial deviation is unnecessary. Revise the Frequency consistent with the STS and CTS. Also withdraw the two apparent generic editorial deviations from the Bases for STS SR 3.4.16.2. In particular, the replacement of "inaccurate" with "less conservative" in the Bases is actually a technical change and is not justified.

ComEd Response to Issue

ComEd will revise the Frequency consistent with the STS, and will withdraw the changes to the Bases for STS SR 3.4.16.2. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAIs 3.1-01, 3.1.6-04, 3.6.3-09, 3.4.14-09, and 3.4.18-03.)





NRC RAI Number

NRC Issued Date 3/9/98

3.4.16-06

RAI Status

09-Oct-98

Closed

NRC Description of Issue

CTS 3.4.8 Table 4.4-4 Measurement Types 2 and 4b ITS 3.4.16.2 Note

If the unit is in Mode 1, 2 or 3, CTS 3.4.8 Table 4.4-4 Measurement Type 4b requires an isotopic analysis of a reactor coolant sample for lodine including I-131, I-133, and I-135 on a Frequency of "between 2 and 6 hours after a Thermal Power change of 15% RTP within a 1 hour period." The CTS markup indicates that ITS 3.4.16.2, verification of reactor coolant Dose Equivalent I-131 specific activity, corresponds to this isotopic analysis. ITS SR 3.4.16.2 contains a note, consistent with the STS, that only requires this test at the CTS. Frequency if the unit is in Mode 1, which is less restrictive than the CTS applicability requirement. The submittal contains no technical justification for this change in applicability. Notice that the CTS markup also indicates that ITS SR 3.4.16.2 corresponds to CTS Table 4.4-4 Measurement Type 2, isotopic analysis for Dose Equivalent I-131 concentration, which is only required to be performed in Mode 1. Comment: Add an L-type DOC with technical justification for this less restrictive change to the CTS. Explain why ITS SR 3.4.16.2 satisfies the requirement Types 2 and 4b, as implied by the CTS markup.

ComEd Response to Issue

Revised Response: Refer to CTS DOC 3.4-L39. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the submittal to include DOC 3.4-LA30 stating, "CTS Table 4.4-4 Item 2 requires DOSE EQUIVALENT (DE) 1-131 concentration to be determined to be less than or equal to 0.35 µCi/gm for Unit 1 (1.0 µCi/gm for Unit 2) once per 14 days while in Mode 1. Item 4 requires an isotopic analysis for lodine including I-131, I-133, and 1-135 once between 2 and 6 hours following a THERMAL POWER change exceeding 15% of the RATED THERMAL POWER within a 1 hour period while in Modes 1, 2, and 3 with no limit imposed. NUREG SR 3.4.16.2 requires DE I-131 to be determined once per 14 days and once between 2 and 6 hours after a THERMAL POWER change of greater than or equal to 15% RTP within a 1 hour period while in Mode 1. NUREG SR 3.4.16.2 places a limit of less than or equal to 1.0 uCi/gm for DE I-131. The NUREG, and therefore ITS, do not require the isotopic Analysis for I-131, I-133, or I-135 to be performed. The purpose for the analysis of I-131, I-133, and I-135 with a power change of greater than or equal to 15% is to trend possible fuel cladding leakage or failure following fast power changes when fuel failure is more apt to occur. Relocating this requirement to the TRM still maintains its SR function for trending any fuel leakage. However, this requirement is not necessary to ensure DE I-131 is maintained. As such, the relocated requirement is not required to be maintained in the ITS, per 10 CFR 50.36(c)(2)(ii), and is not required to provide adequate protection to the public health and safety. Any changes to this requirement will be made in accordance with 10 CFR 50.59." In addition, the Frequency of "Between 2 and 6 hours after a THERMAL POWER change of greater than or equal to 15% RTP within a 1 hour period" will be deleted from NUREG SR 3.4.6.2 Surveillance Requirement and the Surveillance Requirements Section of the Bases for ITS LCO 3.4.16. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAL

09-Oct-98

NRC	RAI Number
	3.4.16-07

3/9/98

RAI Status Closed

NRC Description of Issue

Bases JFD P1

Bases discussion Applicable Safety Analyses. STS markup page B 3.4-93

NRC Issued Date

In the first paragraph, last sentence, the STS text pertaining to the safety analysis assumption for secondary specific reactivity was not adopted. The ITS BAses only retains a redernece to ITS LCO 3.7.17. This is a technical change (and not an editorial change) which requires an explanation or adoption of the STS text. Comment: Revise the Bases to adopt the STS text.

ComEd Response to Issue

ComEd will revise the Bases to adopt the STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

NRC RAI Number	NRC Issued Date	RAI Status	
3.4.16-08	3/9/98	Closed	

NRC Description of Issue

Bases JFD P3 Bases discussion Applicable Safety Analyses, STS markup page B 3.4-95

The eighth paragraph is not adopted based on editorial enhancement. The omitted text, however, is applicable to a standard plant, and should be adopte 1. In addition, this is a generic technical deviation from the STS. Comment: Revise the Bases to adopt the omitted STS text.

ComEd Response to Issue

ComEd will revise the Bases to adopt the omitted STS text. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI.

> **RAI Status** Closed

NRC RAI Number	NRC Issued Date	
3.4.17-01	3/9/98	

NRC Description of Issue

Bases JFD P3 Bases discussion of Background, STS markup page B 3.4-99

The Bases Background text identified as items a, b and c in the second paragraph is not adopted. This omission is characterized by Bases JFD P3 as a plant specific editorial enhancement. This editorial deviation from the STS Bases is generic and could apply to all Westinghouse plants with RCS loop isolation valves. Comment: Revise the Bases to adopt the omitted STS text. See similar comment 3.4.18-04.

ComEd Response to Issue

Revised Response: Minor changes were made to the Bases for ITS LCO 3.4.17 due to changes associated with ITS 3.4.18 LCO and Bases. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: The paragraphs omitted from the Background Section of the Bases for ITS LCO 3.4.17 pertaining to ITS LCO 3.4.18 for opening the RCS loop isolation valves will be retained with appropriate changes made to reflect corresponding changes made to ITS LCO 3.4.18. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4.18-04.)





NRC RAI Number 3.4.17-02

2 3/9/98

RAI Status Closed

RAI Status

Closed

NRC Description of Issue

Bases JFD P44 Bases for ITS LCO 3.4.17, STS Markup page B 3.4-100 Bases Insert B 3.4-100A

NRC Issued Date

NRC Issued Date

3/9/98

JFD P44 states the paragraph was not adopted because the discussion relates to ITS 3.4.18. Staff thinks it is appropriate to state what happens in related LCOs to fully explain the context of the LCO requirements. Thus the omitted STS text should be adopted as applicable. Not doing so would be an unjustified generic deviation from the STS. Note that Bases Insert B 3.4-100A is acceptable and can be included with suitable editorial changes to accommodate the STS text. Comment: Revise the Bases to adopt the omitted STS text.

ComEd Response to Issue

Revised Response: Minor changes were made to the Bases for ITS LCO 3.4.17 due to changes associated with ITS 3.4.18 LCO and Bases. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the ITS Bases to adopt the omitted STS text, but will also retain Bases Insert B3.4-100A as a second paragraph in the LCO Section of the Bases for ITS LCO 3.4.17. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RA1.

NRC RAI Number 3.4.17-03

7-03

NRC Description of Issue Not used

ComEd Response to Issue No response required.





09-Oct-98

NRC RAI Number 3.4.18-01

3/9/98

NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC A28 DOC L18 JFD P31 Bases JFD P36 Bases JFD P1 ITS 3.4.18 CTS 3/4.4.1.5.2

ITS 3.4.18 and associated Bases differ significantly from the STS in that the ITS state requirements for conditions needed to unisolate an isolated loop - rather than conditions for maintaining a loop isolated. In addition, the ITS proposes to permit unisolating a loop with the boron concentration in the loop less than the remainder of the RCS, provided that it is greater than the required SDM boron concentration. Note: These changes are not plant specific requirements and are not part of the current licensing basis. This deviation is miscategorized as plant-specific under the NEI 96-06 guidelines of Section 2.7. Deviations from the Applicable STS. This is a generic deviation from the STS. DOCs A28 and L18 are prepared to implement the P31 deviation in the CTS. Staff can not review these CTS changes until a generic change to the STS consistent with the deviations addressed by JFD P31 is approved by the staff. Therefore, ITS 3.4.18 and all associated deviations from the STS Bases can not be reviewed at this time. Note: There are also editorial changes categorized as P1 and BP1 when they are changes incorporating the technical change P31. Comment: Revise ITS 3.4.18 to be consistent with STS 3.4.18 and CTS 3/4.4.1.5.2.

ComEd Response to Issue

Revised Response: Per discussions with the NRC Reviewer on 9/3/98, ComEd has adopted the NUREG format for ITS LCO 3.4.18. (Note: ITS 3.4.18 changes associated with Beyond Scope change #7 were accepted by the Staff at meetings on 5/7/98 and 7/8/98, and via telecon on 9/17/98.) This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: As discussed with the NRC Reviewer during the April 2, 1998 meeting in Rockville, this change is not a generic change since the only other Westinghouse plants equipped with loop stop valves are Zion and Millstone. Zion is not implementing ITS and Millstone will be pursing an ITS conversion within six months following their restart. Therefore, per conversations with the NRC Reviewer, since Byron and Braidwood are the only operating plants for which this specification applies. ComEd will pursue this change as plant specific. NUREG LCO 3.4.18, "RCS Isolated Loop Startup," conflicted with the nomenclature of CTS 3.4.1.5.2 "Loop Isolation Valves - Shutdown" by referring to conditions to maintain the loops isolated rather than identifying the requirements needed to unisolate the RCS loop. Along with ComEd's response to the LCO 3.4.18 RAIs. ComEd believes that DOC 3.4-A28 adequately addresses plant specific changes associated with LCO JFD 3.4-P31.

In reference to DOC 3.4-L18, this change was approved in the Zion Safety Evaluation Report for implementation of the Improved Technical Specifications as a less restrictive change from Current Licensing Basis (CLB) after the isolated loop boron concentration was greater than or equal to the required cold shutdown boron concentration of the unisolated portion of the RCS. This change was approved by the Staff May 30, 1975 for Zion amendment number 9 (DPR-39) for Unit 1, and amendment number 6 (DPR-48) for Unit 2. The issuance of the above amendments also allowed the plant the flexibility to not meet the requirements for the cold leg stop valve temperature limitation of less than or equal to 10 degrees F if the boron concentration was met. ComEd believes that requiring the boron concentration in the loop to be unisolated to be higher than the boron concentration required for the entire RCS is unnecessarily restrictive. Proposed ITS LCOs 3.1.1 and 3.9.1 provide adequate requirements to assure reactivity control in Modes 5 and 6, respectively. The justification supplied to the NRC for the previous amendments for ComEd's Zion Station supports the less restrictive change for the unique Westinghouse design for four loop plants equipped with loop stop isolation valves. ComEd continues to pursue this change on a plant specific basis.







NRC RAI Number 3.4.18-02

NRC Issued Date

RAI Status Closed

NRC Description of Issue

DOC L9 ITS LCO 3.4.18.b ITS 3.4.18 Required Action B.1 CTS 3/4.4.1.5.2 Action

CTS 3/4.4.1.5.2 Action prohibits opening either the hot leg or cold leg stop valves whenever the temperature requirement of CTS 3.4.1.5.2.b is not met. ITS 3.4.18 Required Action B.1 requires the immediate closure of only the cold leg isolation valve whenever the temperature requirement is not met, consistent with the STS. This change would be acceptable under the STS guidance: however, ITS 3.4.18 differs significantly from the STS, as described in comment 3.4.18-01. Provided that comment is resolved as requested, the CTS change addressed by DOC L9 will be accepted. Otherwise, the CTS requirements must be retained. Comment: Respond according to the resolution of comment 3.4.18-01.

ComEd Response to Issue

Revised Response: See RAI 3.4.18-01 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: With the conditions of CTS 3.4.1.5.2 not met, the action is to not open either the hot leg or the cold leg stop valves. ITS LCO 3.4.18 requires that only the boron concentration be met to open the hot leg loop stop valve, and that the boron concentration and the temperature be met to open the cold leg loop stop valve. The hot leg loop stop valve has no opening interlock on temperature limits, only that the cold leg loop stop valve be closed. With the cold leg stop valve closed, there can be no driving force (delta p) to allow mixing of the fluids in the isolated loop and the operating portion of the RCS. Interlocks are provided on the cold leg stop valve to prevent opening the cold leg stop valve until the hot leg stop valve is open and the temperature requirement is satisfied. An administrative control is placed on the hot and cold leg stop valves to prevent opening the valves until the boron concentration requirement is satisfied. ComEd believes ITS LCO 3.4.18 Required Action B.1 correctly addresses the safety analysis concern of a positive reactivity addition due to the addition of cold water from the isolated loop and is consistent with CTS. ComEd continues to pursue this change.

09-Oct-98

09-Oct-98

NRC RAI Number 3.4.18-03

3 9/98

RAI Status Closed

NRC Description of Issue

JFD P47 ITS SR 3.4.18.1 and SR 3.4.18.2 Bases JFD P1 Bases for SRs 3.4.18.1 and 2. STS Bases markup page E 3.4-105

NRC Issued Date

a. ITS SR 3.4.18.1 and SR 3.4.18.2 have the word "once" inserted before the Frequency interval because JFD P47 states this provides "...a particular time frame...and... is necessary to comply with the SR" and ITS SR 3.0.2. This change does not achieve the stated technical objective because the SR may have to be performed several times in order to actually be within the time interval "prior" to the opening of the cold leg isolation valve. The adding of "once" to an interval stated as occurring "after" any action, starts a clock which cannot be changed. The adding of "once" to an interval as occurring "prior" to any action does not start a clock, until the action has actually occurred. This proposed change introduces an ambiguity not present in the STS which can cause the SR Frequency to be exceeded. Comment: Adopt the STS Frequencies for ITS SRs 3.4.18.1 and 3.4.18.2.

b. Deviations from the STS Bases related to JFD P47 are characterized as editorial under Bases JFD P1, when in fact, they at a technical changes. Thus a technical justification is required. Comment: Withdraw the Bases deviations and adopt the STS which is clear and accurate as written.

ComEd Response to Issue

Revised Response: See RAI 3.4.18-01 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: ComEd will revise the Frequency consistent with the STS, and will withdraw the changes to the Bases for STS SRs 3.4.18.1 and 3.4.18.2. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RA1. (See RAIs 3.1-01, 3.1.6-04, 3.6.3-09, 3.4.14-09, and 3.4.16-05.)

NRC RAI Number	NRC Issued Date	RAI Status
3.4.18-04	3/9/98	Closed

NRC Description of Issue

Bases JFD P3 Bases Background discussion of ITS 3.4.18, STS markup page B 3.4-103

The Bases Background text identified as paragraphs a. b and c has not been adopted. This omission is stated as a plant specific editorial enhancement; whereas, the omitted text is applicable to all Westinghouse plants with RCS loop isolation valves. The submittal contains no technical justification for this change. Comment: Adopt the omitted STS text. See similar comment 3.4.17-01.

ComEd Response to Issue

Revised Response: See RAI 3.4.18-01 Revised Response. This change is provided in our comprehensive ITS Section 3.4 closeout submittal Revision K.

Original Response: The paragraphs omitted from the Background Section of the Bases for ITS LCO 3.4.18 for opening the RCS loop isolation valves will be retained with appropriate changes made to reflect corresponding changes made to ITS LCO 3.4.18. This change will be provided in our comprehensive ITS Section 3.4 closeout submittal revision upon NRC's concurrence with the ComEd Responses to the ITS Section 3.4 RAI. (See RAI 3.4.17-01.)



NRC RAI Number 3.4-01 NRC Issued Date

RAI Status

Open - NRC Action Required

NRC Description of Issue

See table below

Proposed changes based on STS generic change proposals that are still pending or that have been rejected, as indicated in the table, should be withdrawn. For each applicable line item, either adopt the STS or maintain the CTS requirements. See separate correspondence regarding line items for beyond scope changes (reasons 4 and 5) that should have been addressed separately by the licensing project manager and NRR technical staff as appropriate. Line items considered closed are indicated by shading.

*Reasons for exempting change from review:

1. Cover letter 12-13-96, Attachment #3 Existing and Future Licensing Amendments to be incorporated into ITS.

2. Cover letter 12-13-96. Attachment #4 Pending and Proposed ISTS Change Travelers

3. ComEd letter 2-24-97, Attachment #1, Generic Changes versus CTS DOCs

4. Cover letter 12-13-96, Attachment #5 Beyond Scope Change (changes that are different than both CTS and ITS).

5. Cover letter 12-13-96, Attachment #6 Beyond Scope Bracketed Changes

6 ComEd letter 2-24-97, Attachment #2, Plant Specific Change Justifications Which are Now in the Generic STS Change Process

7. Other Reason as identified in comments to this table and/or with the prior approval of the NRC Technical Monitor as referenced.

Byron/Braidwood Units 1 and 2 "Beyond Contractor Review Scope (BCRS)" Table Section 3.4. Reactor Coolant System

TableLine No. ITS Reference

DOC

JFD *Reasons for Exemption of Review

Comment (if required) 1234567 1 5.5.9 5.6.9 - - X - - - - - ComEd Amendment proposal dated 8-19-96 - Note, ITS Section 5.0, DOC A24 adds the SG 3.0 volt criteria to CTS 4.4.5 for the SG Tube Surveillance Program. 2 3.4.16 - - - X - - - - TSTF-3 R1, Not Incorporated 3 3.4.2 L36 C1 BC1 - X X - - - TSTF-26 approved 9/16/96 4 3.4.2 M9 C2 BC2 - X X - - - TSTF-27 R1; superceded by Rev. 2 which is pending 5 3.4.16 - C3 BC3 - X - - - - TSTF-28 approved 9/16/96 6 Bases for 3.4.13 - BC4 - X - - - - TSTF-54, ComEd states replaces "identified" with "unidentified". Should adopt Revision 1 which was approved 4/10/97 7 3.4.15 - - - X - - - - TSTF-60, Not Incorporated - ComEd states contradicts Condition D for entering LCO 3.0.3. Approved 9/17/96: ComEd should adopt. 8 3.4 [3.4.13] - C11 - X - - - - TSTF-61, approved 9/17/96; ComEd should adopt. 9 3.4.5 3.4.9 L3



09-Oct-98

L12 L23 L26 C10 P37 [P36] BC10 - X_X_---X_TSTF-87 R1, ComEd specifies RA is "Initiate action to place" rather than "Place." on "Immediate frequency" [Per C. Harbuck P36 is BCRS from typo in JFD C10] revision 2 approved 10/3/97: ComEd should adopt Revision 2 10 3.4.9 A13 C5 BC5 - X X - - - TSTF-93. 11 3.4.9 - - - X - -- - TSTF-94, Not Incorporated - ComEd provides brackets for words that were incorporated into CTS. ComEd should adopt Rev. 1 which was approved 9/30/97. 12 3.4.1 LA18 C6 BC6 - X X - - - TSTF-105 was rejected. 13 3.4.19 - P30 BP35 - X - - - X TSTF-108, Not Incorporated -ComEd states LCO 3.4.19 is for NTOL plants. Per C Harbuck this is not BCRS. 14 3.4.11 L8 C12 BC13 - X X - - - TSTF-113 R1, still pending 15 3.4.7 - BCII BP3 - X - - - - TSTF-114, approved 12/31/96 16 3.4.13 3.4.15 L21 L22 L24 C8 P23 BC8 BP23 - X X - - - TSTF-116, superceded by Rev 1 which is pending 17 Bases 3.4.11 - BC14 - X - - - - TSTF-151 (WOG-61), Owners Groups asked to modify as suggested by TSB - waiting for response 18 3.4.5 [3.4.6] [3.4.7] [3.4.8] A31 C14 BC18 - X X - - - TSTF-153 (WOG-63) approved 4/11/97 19 3.4.1 A22 C7 BC7 - X X - - - WOG-21 20 3.4 [3.4.12] L16 C9 P11 P21 BC9 BP11 BP19 BP21 [P17] [P19] - X X - - - X WOG-51 R1. C9 states generic change is modified by plant specific changes P11 and P21 [P19 is tied to P11] and [P17 is tied to C9] 21 3.4 [3.4.11] L27 C13 BC15 - X X - - - WOG-60 22 3.4 [3.4.9] - BC17 - X - - - - WOG-68 23 3.4 [3.4.2] [3.4.16] - C15 - X - - - - WOG-81 24 Bases for Section 3.4 [All speci-fications] - BC16 - X - - - - Editorial-1 25 SR 3.4.1.4 Note M15 P3 - - - X - - -26 3.4.3 L28 P44 - - - X - - -27 3.4.18 L18 [A28] P31 [BP36] - - - X - - X Items in bracket are added because both are tied to the P31 change. 28 SR 3.4.18.2 L14 P4 - - - X - - -29 SRs 3.4.5.2 3.4.6.2 3.4.7.2 L5 [B3] [P1] - - - X - X Items in bracket are added because both are tied to the L5 change. 30 3.4 [3.4.12] - P38 - - - - X - WOG-087

31 3.4 [3.4.1] - P3 - - - X - WOG-099 32 3.4 [3.4.12] - P21 - - - X - WOG-100 33 3.4 [3.4.11] - P14 - - - - X - WOG-102 34 3.4 [3.4.16] - P1 P45 - - - X - Editorial-12

ComEd Response to Issue

Revised Response: Two issues associated with the table remain open.

1. Regarding items #25 and #31 (RAI BYS 5.0): Per discussions with the NRC Reviewer on 9/3/98. ComEd has written a letter to the NRC justifying the 7 days in the Note for ITS SR 3.4.1.4. Concurrently, NRC Reviewer Tony Attard reviewing same changes in TSTF-282. Resolution still pending.

2. Regarding item #28 (RAI BYS 8.0): Per discussions with the NRC Reviewer on 9/3/98, ComEd has written a letter to the NRC justifying the 4 hour sampling frequency for ITS SR 3.4.18.2. Resolution still pending.

Original Response: See table for ComEd Response to RAI 3.4-01.

Bottom of Report

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ITS SECTION 3.4 ITS AFFECTED PAGE LIST

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	B 3.4.1-6	3.4.1-02 3.4-01 #12



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ITS SECTION 3.4 CTS AMENDED PAGE LIST

ITS SECTION 3.4 CTS AMENDED PAGE LIST

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ITS SECTION 3.4 SER TABLES






Discussion of Change	Description of Change	ITS Requirement	CTS Requirement			
ITS Section 3.4	ITS Section 3.4, Reactor Coolant Systems					
3.4 A1	Editorial rewording, reformatting, and renumbering changes were made to conform with conventions used in Westinghouse Standard Technical Specifications NUREG-1431(STS).	3.4	3/4 1, 3/4 2, 3/4.3, 3/4 4, 3/4 5, 3/4.10			
3.4 A2	Obsolete, cycle-specific limits regarding Reactor Coolant System (RCS) total flow rate, steam generator water level, and reactor coolant Dose Equivalent I-131 was deleted.	LCO 3.4 1.c, SR 3.4.5.2, SR 3.4.6.2, LCO 3.4.7.b, SR 3.4.7.2, SR 3.4.16.2, Figure 3.4.16-1	LCO 3.2.3 a, 4.4.1.2 2, 4.4.1.3 2, LCO 3.4 1 4 1 b, LCO 3.4 8 a, Figure 3.4-2, Table 4.4-4 Note ****			
3.4 A3	Exception to the provisions of CTS 4.0.4 was removed for the associated RCS flow rate surveillances. Wording and format of the surveillance and STS SR 3.0.4 make such exceptions unnecessary.	SR 3.0.4	4.2.3 1			
3.4 A4	Action to restore RCS operating loop temperature to within limit was deleted since the option to restore out of limit conditions always applies and does not need to be stated.	3.4.2 Action A	3.1.1.4 Actions			
3.4 A5	Footnote reference to Special Test Exception (STE) Specification 3.10.3 was deleted in conformance with STS which reformats the presentation of these STE requirements in the ITS Specification to which they apply.	3.4.2 Applicability	3.1.1.4 Applicability			

(By) - Byrori specific (Bw) - Braidwood specific



Discussion of Change	Description of Change	ITS Requirement	CTS Requirement
3.4 A6	Footnote reference to STE Specification 3.10.4 was deleted in conformance with STS which reformats the presentation of these STE requirements in the ITS Specification to which they apply.	3.4.4 Applicability	3.4.1.1 Applicability
3.4 A7	Footnote reference to STE Specification 3.10.4 was deleted in conformance with STS which reformats the presentation of these STE requirements in the ITS Specification to which they apply.	3.4.5 Applicability	3.4.1.2 Applicability
3.4 A8	Since the condition "when no reactor coolant or Residual Heat Removal (RHR) loop in operation" implies both required loops are inoperable, the applicable Actions were applied to each condition for clarity. The Action to suspend all operations involving a reduction in boron concentration of the RCS was applied to the condition when no required reactor coolant or RHR loop is in operation as well as when both required loops are inoperable.	3.4.6 Actions A and C	3.4.1.3 Action b
3.4 A9	The LCO was revised to include the requirement for the pressurizer heaters to have a redundant emergency power supply capability to be consistent with the surveillance requirement to demonstrate the cross-tie to the emergency safety feature (ESF) power supply.	LCO 3.4.9	LCO 3 4 3
3.4 A10	An explicit allowance for separate condition entry for each pressurizer power operated relief valve (PORV) and each block valve was included to clarify current practice for tracking allowable outage times for each inoperable component.	3.4.11 Actions Note 1	3.4 4 Actions
3.4 A11	Actions to restore pressurizer PORV(s) or block valves were deleted since the option to restore inoperable components currently exists and does not need to be stated.	LCO 3 0 2	3 4 4 Actions a, b, c, and d

(By) - Byron specific (Bw) - Braidwood specific



Discussion of Change	Description of Change	ITS Requirement	CTS Requirement
3.4 A12	Whenever a loop isolation valve is discovered open, compliance with the LCO cannot be reestablished in the Modes of applicability. These requirements are clarified by substituting the phrase "maintain the valves closed" for "suspend startup of the isolated loop" and by adding a note that shutdown of the unit to Mode 5 must be completed.	3.4.17 Action B	3.4.1.5.1 Actions
3.4 A13	Frequency for verifying the capacity of each group of pressurizer heaters was changed from "each refueling outage" to the equivalent "18 months," consistent with the length of a fuel cycle.	SR 3.4.9.2	4.4.3.2
3.4 A14	The phrase "water level not within limit" was used to clarify the intent with the pressurizer "otherwise inoperable."	3.4.9 Action A	3.4.3 Action b
3.4 A15	LCO and Action requirements for steam generator (SG) Operability were incorporated in other STS Specifications. The specific surveillance requirements were incorporated in the Steam Generator Tube Surveillance Program and replaced by a surveillance to verify steam generator tube integrity in accordance with this Program.	LCO 3 4 4, LCO 3 4 5, LCO 3 4 6, LCO 3 4 13, SR 3 4 13 2, 5 5 9	3/4 4 5
3.4 A16	The requirement to enter LCO 3.0.3 was explicitly stated as an Action for the condition of all required RCS Leakage Detection System monitors being inoperable to clarify current requirements.	3.4.15 Action D	3.0 3
3.4 A17	Obsolete, cycle-specific surveillance extension allowance for the 18 month Channel Calibration of the Containment Sump Monitor was deleted.	SR 3 4 15 3	4 4.6 1

(By) - Byron specific (Bw) - Braidwood specific



Discussion of Change	Description of Change	ITS Requirement	CTS Requirement
3.4 A18	The exception to Specification 4.0.4 allowing entry into Modes 3 or 4 without performing leakage testing of the RCS pressure isolation valves (PIV) was reworded as a note stating the surveillance is only required to be performed in Modes 1 and 2.	SR 3.4.14.1 Note	4.4.6.2.2
3.4 A19	Explicit allowance was included for separate condition entry for each flow path with leakage from one or more RCS PIVs not within its leakage limit. Also, direction was included to enter the applicable LCOs for systems made inoperable by an inoperable PIV to clarify current requirements.	3.4.14 Actions Notes 1 and 2	3.4 6.2 Actions
3.4 A20	Not used.		
3.4 A21	Requirements to protect the RCS from overpressurization by safety injection (SI) or charging pump operation during shutdown Modes were reworded regarding the pumps' capability of injecting into the RCS rather than the pump's inoperability except for certain specified evolutions.	LCO 3.4.12.b, SR 3.4.12.1, SR 3.4.12.2	SR 4.5 3 2
3.4 A22	Not used.		
3.4 A23	The LCO for RCS loops in Modes 1 and 2 was revised to clarify that all loops be Operable as well as in operation since other Specifications require reactor coolant pumps and steam generators to be Operable.	LCO 3.4.4	LCO 3 4 1 1
3.4 A24	Frequency for verifying the capacity of each group of pressurizer heaters was changed from "each refueling outage" to the equivalent "18 months," consistent with the length of a fuel cycle.	SR 3.4.1.4	4.2.3.5

(By) - Byron specific (Bw) - Braidwood specific





Discussion of Change	Description of Change	ITS Requirement	CTS Requirement
3.4 A25	Specifications were revised to indicate the RHR loops "required" to be in operation to clarify and reference the LCO allowance for the pumps to be removed from operation for limited periods.	SR 3.4.6.1, LCO 3.4.7 Note 2, 3.4.7 Actions, SR 3.4.7.1, SR 3.4.8.1	4.4.1.3.3, LCO 3.4.1.4.1, 3.4.1.4.1 Actions, 4.4.1.4.1.2, 4.4.1.4.2
3.4 A26	The phrase "with power removed" was deleted from the allowance that PORV block valves need not be tested if they are closed in accordance with specified Action requirements since opening the block valve by any means is not allowed while in this condition.	SR 3.4.11.1 Note 1	4442
3.4 A27	CTS was revised to reflect changes requested in a License Amendment Request dated May 29, 1998.	3.4.11 Actions	3.4.4 Actions
3.4 A28	Not used.		
3.4 A29	Actions regarding PORV inoperability due to automatic actuation circuitry failure were reformatted for clarification to be conditional upon the capability of the valve being manually and automatically closed.	3.4.11 Actions B and E	3.4.4 Actions b and c (proposed)
3.4 A30	Actions pertaining to inoperable PORVs were reformatted for clarification to be conditional upon the capability of the valve being manually and automatically closed rather than upon excessive seat leakage.	3.4.11 Actions A, B, and E	3 4.4 Actions a, b, and c

(By) - Byron specific (Bw) - Braidwood specific





Discussion of Change	Description of Change	ITS Requirement	CTS Requirement
3.4 A31	The allowance that reactor coolant or RHR pumps may be deenergized under certain conditions was reworded for clarification to allow the pumps to be "removed from operation."	LCO 3.4.5 Note, LCO 3.4.6 Note 1, LCO 3.4.7 Note 1, LCO 3.4.8 Note 1	LCO 3 4 1 2 Note, LCO 3 4 1 3 Note, LCO 3 4 1 4 1 Note, LCO 3 4 1 4 2 Note
3.4 A32	The surveillance to demonstrate the Operability of the "cross-tie" for the pressurizer heaters to the ESF power supply was reworded for clarification to demonstrate the heaters' "capability to be powered by" the ESF power supply.	SR 3.4.9.3	4.4.3.3
3.4 A33	Explicit statement that inservice inspection and testing activities shall be in addition to other specified SRs was deleted as an unnecessary iteration of current requirements.	Specification 3.4.11 Surveillance Requirements, SR 3.4.12.5	4441, 44932c
3.4 A34	Requirements were reformatted to more clearly specify the appropriate Actions to take when a required RHR loop or one or more required steam generators are inoperable in Mode 5 with RCS loops filled.	3.4.7 Actions B and C	3.4.1.4.1 Action a

(By) - Byron specific (Bw) - Braidwood specific

Byron and Braidwood

A_TBL3.4







Table R - Relocated CTS

.

Discussion of Change	Relocated CTS	Description of Relocated CTS	New Location	Control Process
CTS Section 3/	4.4, Reactor Coola	nt System		
3.4 R1	3/4.4.2.1	Safety Valves - Shutdown	TRM	§50.59
3.4 R2	3/4.4.7	Chemistry	TRM	§50.59
3.4 R3	3/4.4.9.2	Pressurizer Pressure/Temperature Limits	TRM	§50.59
3.4 R4	3/4.4.10	Structural Integrity (except requirements for reactor coolant pump flywheel)	TRM	§50.59
3.4 R5	3/4.4.11	RCS Vents	TRM	§50.59

(By) - Byron specific (Bw) - Braidwood specific



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Table M - More Restrictive Changes to CTS

Discussion of Change		Description of Change	ITS Requirement	CTS Requirement
ITS	Section 3.4	, Reactor Coolant Systems		
3.4	M1	Surveillances were added to require verification of correct breaker alignment and indicated power available to the required Residual Heat Removal (RHR) pump that is not in operation should it need to be placed in operation.	SR 3.4.7.3, SR 3.4.8.2	N/A
3.4	M2	The restrictions under which an RHR pump may be de-energized were revised to include a prohibition of any draining operations that would further reduce the Reactor Coolant System (RCS) water volume.	LCO 3.4.8 Note 1.c	LCO 3 4 1 4 2 Note
3.4	M3	The allowances for removing all required RCS pumps from operation were revised to limit the amount of time the RCS is without forced cooling to \leq 1 hour per 8 hours.	LCO 3 4 5 Note, LCO 3 4 6 Note 1, LCO 3 4 7 Note 1	LCO 3 4 1 2. LCO 3 4 1 3. LCO 3 4 1 4 1
3.4	M4	With the RHR System suction isolation valve interlock function inoperable, the CTS Emergency Core Cooling System Specification requires restoration of the RHR subsystem to Operable within 7 days. An Action specific to the interlock function was added to require isolating the RHR flow path within 4 hours to protect RHR components from overpressurization.	3.4.14 Action B	3.5.2 Action a
3.4	M5	An Action to shutdown the unit to a Mode in which the LCO does not apply when two or more pressurizer valves are inoperable was included rather then defer to LCO 3.0.3 for this requirement. The result is a completion time of 1 hour less to have the unit in Mode 4.	3.4.10 Action B	3.0.3
3.4	M6	The completion time for restoring an inoperable pressurizer power operated relief valve (PORV) was reduced to 72 hours consistent with other similar component restoration times.	3.4.11 Action B	3.4.4 Action b
3.4	M7	The Specification for Low Pressure Overpressure Protection (LTOP) was revised to add LCOs, Actions, and Surveillance Requirements for conditions in which the RCS could be overpressurized from unisolated accumulators, safety injection (SI) or charging pumps, or from any other reason LTOP becomes inoperable.	3.4.12	3/4 4 9 3

(By) - Byron specific (Bw) - Braidwood specific



Discussion of Change	Description Change	ITS Requirement	C7S Requirement
3.4 M8	With a SI pump(s) discovered Operable in the applicable Modes and conditions, the Action to restore the SI pump(s) to inoperable status within 4 hours was changed to immediately initiate action to verify no pumps are capable of injecting into the RCS.	3.4.12 Action B	3.5.4.1 Actions
3.4 M9	The frequency for verification of RCS average temperature was changed to every 12 hours while in the applicable Modes and conditions rather than every 30 minutes only when RCS average temperature is $\leq 557^{\circ}$ F with the T_{avg} - T_{ret} deviation alarm not reset.	SR 3.4.2.1	4.1.1.4 b
3.4 M10	A completion time of 72 hours was imposed on the Action to determine that the RCS remains acceptable for continued operation after the RCS temperature or pressure limit has been exceeded in Modes 1, 2, 3, or 4.	3.4.3 Action A	3.4.9.1 Action
3.4 M11	The Action to restore RCS temperature and/or pressure to within limit within 30 minutes was changed for Modes other than 1, 2, 3, or 4 to require immediate action to restore the parameter(s) to within limit and to determine that the RCS is acceptable for continued operation before entering Mode 4.	3.4.3 Action C	3.4.9.1 Actions
3.4 M12	Special Test Exception to allow reactor criticality under no flow conditions was deleted. The Specification is no longer needed since this testing was only necessary for initial unit startup with a new core.	N/A	3/4.4 10.4
3.4 M13	Specifications for RHR operation in Mode 5 conditions do not specify Actions for both loops of RHR inoperable. Actions were added to immediately suspend all operations involving a reduction of RCS boron concentration and to immediately initiate restoration of one RHR loop to Operable status.	3.4.7 Action D, 3.4.8 Action C	3.4.1.4.1 Actions, 3.4.1.4.2 Actions
3.4 M14	If unable to restore RCS total flow rate to within limit within 2 hours in Mode 1, the Action to reduce Thermal Power was replaced with the Action to place the unit in a Mode in which the LCO does not apply.	3.4.1 Action B	3.2.3 Action a 2



Discussion of Change		Description of Change	ITS Requirement	CTS Requirement	
3.4	M15	A time period of 7 days after reaching 90% Rated Thermal Power was stipulated for determining RCS total flow rate by precision heat balance measurement rather than prior to completion of Physics Tests.	SR 3.4.1.4 Note	a 2.3.5	
3.4	M16	A time period of 31 days was imposed for sampling and radioanalysis for RCS $\bar{\rm E}$ after a minimum of 2 effective full power days and 20 days of Mode 1 operation.	SR 3.4.16.3 Note	Table 4 4-4, Note *	
3.4	M17	Not used.			
3.4	M18	To provide additional assurance that low temperature overpressurization events are prevented, the Applicability was revised so that no SI pumps may be capable of injecting into the RCS, regardless of the pressurizer level.	3.4.12 Applicability	3.4.5.1 Applicability	
3.4	M19	The surveillance frequency "in accordance with the Inservice Testing Program" for verifying the leakage from each RCS pressure isolation valve is within limits was added for consistency with STS.	SR 3.4.14.1	4.4.6.2.2 č.	



Table LA - Details Relocated from CTS

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Discussion of Change	CTS Reference	Description of Relocated Details	New Location	Control Process	Туре
ITS Section 3.4	, Reactor Coolant	Systems	1.1		
3.4 LA1	4.4.1.1	Information describing the characteristics of operating reactor coolant loops.	Bases	ITS 5.5.14	2
3.4 LA2	LCO 3.4.1.2	Design details listing the components associated with each reactor coolant loop for Operability.	Bases	ITS 5 5 14	1
3.4 LA3	4.4.1.2.3, 4.4.1.3.3, 4.4.1.4.1.2, 4.4.1.4.2	Information describing the characteristics of operating reactor coolant or Residual Heat Removal (RHR) loops.	Bases	ITS 5.5.14	2
3.4 LA4	LCO 3.4.1.3	Design details listing each RHR loop and the components associated with each reactor coolant loop for Operability.	Bases	ITS 5.5.14	1
3.4 LA5	Not used.				
3.4 LA6	4.4.3.1, 4.4.3.2	Details describing the testing methods used to demonstrate pressurizer heater Operability.	Bases	ITS 5.5.14	3
3.4 LA7	Table 4.4-4 Note **	Details describing the method used to analyze reactor coolant samples for gross radioactivity.	Bases	ITS 5 5 14	3
3.4 LA8	Not used.				
3.4 LA9	3.4.6.1 Action a	Parameters for which containment atmosphere must be analyzed when containment radiation monitors are inoperable.	Bases	ITS 5.5.14	3

Relocated Detail Types

3 Procedural Details for Meeting TS Requirements

1 Details of System Design 2 Description of System Operation

(By) - Byron specific (Bw) - Braidwood specific



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Table LA - Details Relocated from CTS

Dis	cussion Change	CTS Reference	Description of Relocated Details	New Location	Control Process	Туре
3.4	LA10	LCO 3.4.6.2.f	Details for adjusting allowable pressurizer isolation valve (PIV) leakage when tested at Reactor Coolant System (RCS) pressures other than that specified.	Bases	ITS 5.5.14	3
3.4	LA11	Table 3.4-1	Listing of RCS PIVs valve identification numbers and functions.	Bases	ITS 5.5.14	1
3.4	LA12	Not used.				
3.4	LA13	Not used.				
3.4	LA14	4.5.3.2. 3/4.5.4.1	Details describing the method used to demonstrate that the safety injection (SI) and charging pumps are incapable of injecting into the RCS during Low Temperature Overpressure Protection (LTOP) conditions.	Bases	ITS 5.5 14	3
		4.5.4.2.1	Details describing the method used to demonstrate that the SI pumps are incapable of injecting into the RCS during LTOP conditions.	TRM	§50.59	3
3.4	LA15	4.4.9.3.2	Valve identification numbers used for demonstrating Operability of RHR suction relief valves when used for LTOP.	Bases	ITS 5.5 14	3
3.4	LA16	Not used.				
3.4	LA17	LCO 3.2.3	Requirement for maintaining four RCS loops in operation.	Bases	ITS 5 5 14	2
3.4	LA18	4.2.3.5	Method for determining RCS total flow rate.	TRM	§50 59	3
3.4	LA19	4.2.3.4	Surveillance requirement to perform an 18 month Channel Calibration of the RCS total flow rate indicators.	TRM	§50.59	3

Relocated Detail Types

1 Details of System Design

3 Procedural Details for Meeting TS Requirements

2 Description of System Operation

(By) - Byron specific

(Bw) - Braidwood specific

Table LA - Details Relocated from CTS

Di	scussion Change	CTS Reference	Description of Relocated Details	New Location	Control Process	Туре
3.4	LA20	Not used.			1	<u> </u>
3.4	LA21	LCO 3.4.6.2.c	Excepting isolated steam generators from RCS leakage limits.	Bases	ITS 5 5 14	3
3.4	LA22	3.4.9.1 Actions	Requirement that an engineering evaluation be performed to determine the effects of a temperature or pressure excursion on the structural integrity of the RCS.	Bases	ITS 5.5 14	3
3.4	LA23	4.4.6.1.c	Requirement to periodically verify the oil separator portion of the containment floor drain collection sump has been filled.	TRM	§50.59	3
3.4	LA24	4.4.6.2.1.a, 4.4.6.2.1.b, 4.4.6.2.1.e	Surveillance requirements for demonstrating RCS leakage is within specified limits.	TRM	§50.59	3
3.4	LA25	3.4.9.3 Action e	Requirement to submit a Special Report to the Commission in the event that either the pressurizer power operated relief valves, the RHR suction relief valves, or the RCS vents are used to mitigate an RCS pressure transient.	TRM	§50.59	3
3.4	LA26	4.4.6.2.2.c	Requirement to demonstrate each RCS PIV Operable by verifying leakage to be within its limit prior to returning the valve to service following maintenance, repair, or replacement.	TRM	§50 59	3
3.4	LA27	Table 3.3-6, Table 4.3-3	RCS leakage detection instrumentation id antification numbers for the containment gaseous and particulate radioactivity monitors.	Bases	ITS 5.5.14	1

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Relocated Detail Types 1 Details of System Design 2 Description of System Operation

3 Procedural Details for Meeting TS Requirements

(By) - Byron specific

(Bw) - Braidwood specific

Byron and Braidwood

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Table LA - Details Relocated from CTS

Discussion of Change	CTS Reference	Description of Relocated Details	New Location	Control Process	Туре
3.4 LA28	LCO 3.4.6.1 b, 4.4.6.1.b	Details of the RCS leakage detection systems regarding the methods used to monitor leakage into the containment floor drain sump and the reactor cavity sump.	Bases	ITS 5.5 14	1, 2
3.4 LA29	SR 4.1.1.4.b	Requirement to verify the RCS average temperature is at least 550°F once per 30 minutes when the reactor is critical and RCS temperature is less than 557°F with the T_{avg} - T_{ref} Deviation Alarm not reset.	TRM	§50.59	3

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Relocated Detail Types
1 Details of System Design
2 Description of System Operation

3 Procedural Details for Meeting TS Requirements

(By) - Byron specific (Bw) - Braidwood specific

Byron and Braidwood

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Table L - Less Restrictive Changes to CTS

Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
ITS Section 3.4	, Reactor Coolant Systems			
3.4 L1	Requirements to verify through incore flux mapping and RCS total flow rate comparison that the combination of Reactor Coolant System(RCS) total flow rate and Nuclear Enthalpy Rise Hot Channel Factor ($F_{\Delta H}^{N}$) are within limits were eliminated consistent with STS. Individual limits for RCS total flow rate and $F_{\Delta H}^{N}$ were retained in separate Specifications.	3.2.2, 3.4.1	3.2.3 Actions b and c, 4.2.3.2, 4.2.3.3	III, VIII
3.4 L2	The explicit requirement to determine RCS temperature to be $\ge 550^{\circ}$ F within 15 minutes prior to achieving reactor criticality was removed since SR 3.0.4 requires the performance of this surveillance prior to entering these cc. Jitions specified in the Applicability.	SR 3.4.2.1, SR 3.0.4	4.1.1.4.a	VI
3.4 L3	Requirements were revised to base the number of operating RCS loops on the rod withdrawal capability of the Rod Control System rather than on the position of the Reactor Trip System breakers (RTBs) since methods other than opening the RTBs are available for preventing an inadvertent rod withdrawal.	3 4.5 LCO and Actions A, B and C	3.4 1.2 LCO and Actions b and c	1, 111
3.4 L4	The completion time for reducing Thermal Power when RCS total flow rate is outside its limit was relaxed from 4 hours to 6 hours to allow for an orderly transition to a Mode in which the limit is not applicable.	3.4 1 Action B	3 2 3 Action a 2	IV
3.4 L5	Not used.			

Less Restrictive Change Categories

- 1 Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific

(Bw) - Braidwood specific

Byron and Braidwood

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L6	An allowance was included for separate condition entry for each RCS loop isolation valve discovered either closed or with power available to its operator. Also, CTS implicitly requires that, when one or more loop isolation valves have power available, the unit be placed in a Mode in which the LCO does not apply. Required Actions were relaxed to allow 30 minutes to restore compliance with the LCO by removing power from the valve operators.	3.4.17 Actions Note and Action A	3.0.3	Ш
3.4 L7	The completion time for restoring an RCS pressure isolation valve (PIV) to within its leakage limit was relaxed from 4 hours to indefinitely provided the compensatory Actions are taken to isolate the high pressure portion of the affected system from the low pressure portion with a specified isolation valve within 4 hours and with a second specified isolation valve within 72 hours.	3.4.14 Action A	3.4 6.2 Action c	IV
3.4 L8	Not used.			
3.4 L9	The CTS requirement to maintain both hot and cold legs isolation valves closed until the isolated loop's cold leg temperature is within limits was reformated and relation require closure of only the cold leg isolation valve since this adequately prevent cold water reactivity event.	3.4.18 Action B	3.4.1.5.2 Actions	ш
3.4 L10	An allowance was added so that the surveillance to perform a Channel Operational Test on each pressurizer power operated relief valve (PORV) actuation channel need not be performed until 12 hours after entering the Modes (4) of applicability from Mode 3.	SR 3.4.12.7	4.4.9.3.1.a	VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific

(Bw) - Braidwood specific

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements



Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L11	The completion time for reducing power to < 5% RTP when any Departure from Nucleate Boiling (DNB) parameter limit is exceeded was relaxed from 4 hours to 6 hours to allow for an orderly power reduction to Mode 2.	3.4.1 Action B	3.2.5 Actions	IV
3.4 L12	CTS 3.0.3 requires that, with only one RCS loop in operation and the RTBs in the closed position (Rod Control System capable of rod withdrawal) and if the Action to open the RTBs is not completed within the required time, the unit be placed in a Mode (4) in which the LCO does not apply. Required Actions were relaxed to allow continued operation in Mode 3 provided three compensatory Actions are taken immediately.	3.4.5 Action C	3.4.1.2 Actions b and c, 3.0.3	
3.4 L13	Not used.			
3.4 L14	The frequency for determining the boron concentration of an isolated loop to be greater than the boron concentration of the operating loops prior to opening the valves of the isolated loop was relaxed from 2 hours to 4 hours to allow adequate time to sample and confirm the analysis results.	SR 3.4.18.2	4.4.1.5.2.2	VI
3.4 L15	An exception was included to relax the surveillance requirement that RCS PIV leakage be verified whenever the valves are actuated. A note allows PIVs actuated during surveillance testing need not be tested more than once if a repetitive testing loop cannot be avoided.	SR 3.4.14.1 Note 2	44622	VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time
- (By) Byron specific (Bw) - Braidwood specific
- Byron and Braidwood

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

Table L - Less Restrictive Chang

Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L16	An exception was included to relax the requirement that a maximum of one centrifugal charging pump may be capable of injection. A note was included in the LCO to allow two pumps capable of injecting into the RCS for < 15 minutes during pump swap operations.	3.4.12 Action A Note	LCO 3.5.3.a	I, V
3.4 L17	Because of the availability of diverse methods of RCS leakage detection, the requirement that both containment atmosphere gaseous and particulate radiation monitors be Operable was relaxed so that only one of the containment atmosphere radioactivity monitors is required Operable.	LCO 3 4 15, SR 3 4 15 1, SR 3 4 15 2, SR 3 4 15 4	Table 3.3-6 Items 3 and 4, LCO 3.4 6.1, 4.4.6.1.a	, I, V
3.4 L18	The minimum boron concentration to which an isolated loop must be charged prior to unisolating it was changed from the concentration of the operating loops to that required by shutdown margin (SDM) calculation. This change allows an isolated loop to be unisolated even if the boron concentration of the isolated loop is less than the operating loops as provided the isolated loop concentration meets the applicable SDM requirements.	I.CO 3.4.18.a, 3R 3.4.18.2	LCO 3.4.15.2.a, 4.4.1.5.2.2	I, V
3.4 L19	With both the containment atmosphere gaseous and particulate radiation monitors inoperable, CTS requires the restoration of one of the monitors within 72 hours. In addition, both an RCS inventory balance and grab samples of containment atmosphere are periodically required as compensatory Actions. These Actions were relaxed to require restoration of one of the monitors within 30 days and performance of either of the compensatory Actions.	3.4.15 Action B	3.4.6.1 Actions c.1 and c.2	III, IV

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements

IV Relaxation of completion time

(By) - Byron specific

(Bw) - Braidwood specific

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L20	Exceptions were included to relax the requirement that all the monitors of the RCS Leakage Detection System must be Operable prior to entering or changing Modes of applicability. These changes allow Mode changes if either the containment sump monitor or either of the containment atmosphere radioactivity monitors are inoperable provided that the required compensatory Actions are performed daily.	3.4.15 Actions A and B	3.0.4	11, 111
3.4 L21	With the containment sump flow monitor inoperable, the requirement to restore the monitor to Operable status within 7 days was relaxed to allow 30 days for restoration provided the compensatory Action to perform a water inventory balance is performed daily.	3.4.15 Required Action A.2	3.4.6.1 Action b	VI
3.4 L22	The interval for performing an RCS water inventory balance was relaxed from once per 8 hours to once per 24 hours considering the availability of diverse methods of detecting RCS leakage.	3.4.15 Required Actions A.1 and B.1.2	3.4.6.1 Action c.3	IV
3.4 L23	CTS 3.0.3 requires that, with two required RCS loops inoperable, the unit be placed in a Mode (4) in which the LCO does not apply. An explicit condition was included to allow continued operation in Mode 3 provided three compensatory Actions are taken immediately.	3.4.5 Action F	3.0.3	III
3.4 L24	The surveillance to perform an RCS water inventory balance once per 72 hours was modified to allow its initial performance 12 hours after establishment of steady state operation rather than requiring the surveillance to be met prior to entering this power condition. Actions requiring the periodic performance of this surveillance were also provided with this allowance for their initial performance.	SR 3.4.13 1, 3.4.15 Required Actions A.1 and B.1.2	4 4 6 2 1 d, 3 4 6 1 Action c.3	VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific (Bw) - Braidwood specific

Byron and Braidwood

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L25	CTS imposes a maximum leakage rate of 1.0 gpm (notwithstanding the provisions for RHR suction motor operated valves in Table 3.4-1) from any RCS PIV. A more meaningful limitation based on valve size was used to prevent unwarranted repair on larger valves.	SR 3.4.14.1	LCO 3.4.6.2.f. Table 3.4-1 Notes	V
3.4 L26	With the pressurizer otherwise inoperable (water level not within limit), the Action requirements were revised to place the unit in Mode 3 with all rods fully inserted and the Rod Control System incapable of rod withdrawal rather than Mode 3 with the RTBs open since mathods other than opening the RTBs are available for preventing an inadvertent rod withdrawal.	3.4.9 Action A	3 4 3 Action b	III
3.4 L27	The 18 month surveillance to operate the PORVs through a complete cycle of travel was revised to eliminate the explicit requirement to perform the test in Mode 3 or 4 and requires, instead, the surveillance to be "current" upon entering Modes 1 and 2. STS SR 3.0.4 and Generic Letter 90-06 continue to require its performance in Mode 3 or 4.	SR 3.4.11.2 Note	4.4.4.1.c	VI
3.4 L28	The default Action to reduce the RCS temperature and pressure to < 200°F and < 500 psig, respectively, when any RCS temperature or pressure limit is not restored within 30 minutes was relaxed to place the unit in Mode 5. The temperature in this Mode is equivalent but pressure may exceed 500 psig.	3.4.3 Action B	3.4.9.1 Actions	III
3.4 L29	Not used.			

Less Restrictive Change Calegories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific (Bw) - Braidwood specific

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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Table L - Less Restrictive Changes to CTS

Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L30	The applicability has been revised to delete the requirements to comply with the LCO and Actions and to periodically verify the RCS specific activity within limits during Mode 3 with RCS temperature < 500°F and Modes 4 and 5 due to the unlikely possibility of a steam generator tube rupture during these Modes. Similarly, the sampling and analysis requirements when the specific activity of the reactor coolant exceeds 100/ $\bar{\rm E}$ μ Ci/gram were deleted since exceeding this limit now requires promptly placing the unit in a Mode in which the specific activity limits do not apply.	3.4.16	3/4.4.8, Table 4.4-4	II, III
3.4 L31	Not used.			
3.4 L32	An exception was included to relax the requirement that the Dose Equivalent I-131 specific activity must be within limits prior to entering or changing Modes of applicability. This change allows entry into the applicable Modes while relying on the required Actions even though the Actions may eventually require exiting the applicable Modes if the limits are not restored within specified times.	3.4.16 Action A	3.0.4	II, 111
3.4 L33	Not used.			
3.4 L34	The frequency interval for verifying the reactor coolant gross specific activity is within limits was relaxed from 72 hours to 7 days because this interval is adequate to trend this parameter.	SR 3.4.16.1	4.4.8, Table 4.4-4 Item 1	VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements

IV Relaxation of completion time

(By) - Byron specific

(Bw) - Braidwood specific

- V Reiaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

Discussion of Change	Description of Change	ITS Requirement	CTS Requirement	Change Category
3.4 L35	The exception to CTS Specification 4.0.3 was eliminated for the surveillance to determine the RCS total flow rate by precision heat balance after each fuel loading. This change relaxes the frequency to allow the missed surveillance to be performed in the 24 hour delay period.	SR 3.4.1.4, SR 3.0.3	4.2.3.5	VI
3.4 L36	Whenever an RCS operating loop temperature is not within limit, the Action to place the unit in Mode 3 was relaxed to place the unit in Mode 2 with $k_{eff} < 1.0$ to be consistent with the Applicability. Also the time specified for completing this Action was relaxed from 15 minutes to 30 minutes to allow for an orderly unit shutdown.	3.4.2 Action A	3.1 1.4 Actions	III, IV
3.4 L37	An exception was taken to the LCO requirement that at least one Residual Heat Removal (RHR) loop shall be in operation in Mode 5 with loops filled. The exception allows all RHR loops to be removed from operation during the transition from Mode 5 to Mode 4 when at least one RCS loop is in operation. This change provides equivalent RCS circulation for mitigation of a boron dilution event and an orderly heatup transition to the next Mode.	LCO 3.4.7 Note 4	LCO 3 4 1 4 1	1
3.4 L38	The requirements for pressurizer safety valves was relaxed to allow entry into the Mode of applicability without the lift settings having been verified within limits in order to set them at nominal operating temperature and pressure. 54 hours following entry into Mode 3 is allowed for this adjustment provided the valves have had a preliminary cold setting.	LCO 3.4.10 Note	LCO 3 4 2 2	I, VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific

(Bw) - Braidwood specific

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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Discussion of Change	Description	ITS	CTS	Change
	of Change	Requirement	Requirement	Category
3.4 L39	The Modes in which sampling and analysis of reactor coolant for isotopic lodine is required to be performed following power level changes > 15% RTP within a 1 hour period was relaxed from Modes 1, 2, and 3 to Mode 1 where fuel failure is more apt to occur and where RTP changes of this magnitude are of concern.	SR 3.4.16.2	Table 4 4-4 Items 2 and 4 b	VI

Less Restrictive Change Categories

- I Relaxation of LCO requirements
- II Relaxation of Applicability
- III Relaxation of Action requirements
- IV Relaxation of completion time

(By) - Byron specific (Bw) - Braidwood specific

Byron and Braidwood

- V Relaxation of SR acceptance criteria
- VI Relaxation of Surveillance Frequency
- VII Deletion of requirements redundant to regulation
- VIII Deletion of Surveillance requirements

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ENCLOSURE 1

ITS REVISION K ITS SECTION 3.4

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