May 15, 2000

MEMORANDUM TO: File

FROM:	M. Christopher Nolan, Project Manager, Section 1 Project Directorate IV & Decommissioning Division of Licensing Project Management Office of Nuclear Reactor Regulation	/RA/

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1, FACSIMILE TRANSMISSION, ISSUES TO BE DISCUSSED IN AN UPCOMING CONFERENCE CALL OR PUBLIC MEETING (TAC NO. MA8082)

The attached information was transmitted by facsimile on May 5, 2000, to Mr. Clint Szabo of Entergy Operations, Inc. (the licensee). This information was transmitted to facilitate an upcoming conference call or public meeting in order to clarify the licensee's submittal dated January 28, 2000, which requested a revision to the Arkansas Nuclear One, Unit 1 Technical Specifications to adopt the Improved Standard Technical Specifications consistent with NUREG-1430, "Standard Technical Specifications - Babcock and Wilcox Plants," Revision 1, dated April 1995. This memorandum and attachment do not convey a formal request for information or represent a Nuclear Regulatory Commission (NRC) staff position.

Docket No. 50-313

Attachment: Issues for Discussion in Upcoming Telephone Conference or Public Meeting

May 15, 2000

MEMORANDUM TO: File

FROM:	M. Christopher Nolan, Project Manager, Section 1 /RA/ Project Directorate IV & Decommissioning Division of Licensing Project Management Office of Nuclear Reactor Regulation	
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Docket No. 50-313

Attachment: Issues for Discussion in Upcoming Telephone Conference or Public Meeting

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3.6.1 Reactor Building

3.6.1-1 DOC A1 DOC A18 DOC A19 DOC A20 DOC LA 1 CTS 1.7 ITS 3.6.1, 3.6.2, 3.6.3 and Associated Bases

CTS 1.7 defines REACTOR BUILDING integrity. A markup of CTS 1.7 shows that portions of CTS 1.7.a, 1.7.b, 1.7.c, and 1.7.e are relocated to ITS B.3.6.1 Bases - LCO, ITS 3.6.2 Bases - LCO, and ITS B3.6.3 Bases - LCO and the relocation is justified by DOC LA1. The rest of CTS 1.7 is covered by DOCs A1, A18, A19, and A20. These DOCs state that the balance of CTS 1.7 is deleted, is incorporated into ITS 3.6.1 or relocated to other LCOs in ITS 3.6. These changes are not entirely correct with regards to ITS 3.6.1. CTS 1.7 is relocated virtually intact to ITS 3.6.1 Bases BACKGROUND which makes the whole change with regards to ITS 3.6.1 a Less Restrictive (LA) change. See Comment Numbers 3.6.1-2. **Comment:** Revise the CTS markup and the discussions and justifications associated with DOC LA1 to show that CTS 1.7 is relocated to ITS B3.6.1 Bases - BACKGROUND. See Comment Numbers 3.6.1-2.

ANO-1 Response:

3.6.1-2 DOC A18

DOC LA 1 JFD 2 CTS 1.7.a ITS B3.6.1 Bases - BACKGROUND and LCO

CTS 1.7 defines REACTOR BUILDING integrity. A markup of CTS 1.7 is provided in the CTS markup of CTS 3.6. DOC LA 1 states that the definition requirements have been relocated to ITS B3.6.1 Bases - LCO. This justification is not entirely correct. CTS 1.7.a states that "The equipment hatch is closed and sealed..." ITS B3.6.1 Bases BACKGROUND states the following: "To maintain this leak tight barrier :c. The equipment hatch is closed; and ..." The requirement for sealing the equipment hatch has not been included here, yet it is included in ITS B3.6.1 Bases - LCO. No justification is provided for this difference. **Comment:** Correct this discrepancy.

ANO-1 Response:

ATTACHMENT

3.6.1-3 DOC A20

DOC LA1 JFD 2 JFD 7 CTS 1.7.e CTS 4.4.1 CTS 4.26.2 STS SR 3.6.1.1 and Associated Bases ITS SR 3.6.1.1 and Associated Bases

CTS 1.7.e, 4.4.1 and 4.26.2 require leak rate testing in accordance with the Reactor Building Leakage Rate Testing Program which is based on the requirements of 10 CFR 50 Appendix J, Option B. STS SR 3.6.1.1 requires the visual examination and leakage rate testing be performed in accordance with 10 CFR 50 Appendix J as modified by approved exemptions. ITS SR 3.6.1.1 modifies STS SR 3.6.1.1 to conform to CTS 1.7.e and 4.4.1 as modified in the CTS markup. See Comment Numbers 3.6.1-4 and 3.6.3-4 for concerns with the leak rate testing of reactor building purge valves. The STS is based on Appendix J, Option A while the CTS and ITS are based on Appendix J, Option B. Changes to the STS with regards to Option A versus Option B are covered by a letter from Mr. Christopher I. Grimes to Mr. David J. Modeen, NEI, dated 11/2/95 and TSTF-52 as modified by staff comments of 10/96, 12/98 and 1/2000. While the ITS SR 3.6.1.1 differences from STS SR 3.6.1.1 are in conformance with the letter and TSTF-52 as modified by staff comments, the changes to the ITS Bases as well as ITS 3.6.2 and ITS 3.6.3 and their associated Bases are not in conformance with the letter, TSTF-52 as modified by the staff and the CTS. See Comment Numbers 3.6.2-2, and 3.6.3-3. **Comment:** Licensee should revise its submittal to conform to the 11/2/95 letter and TSTF-52 modified by the staff. See Comment Numbers 3.6.1-4, 3.6.2-2, 3.6.3-3 and 3.6.3-4.

3.6.1-4 DOC A20 DOC LA 1 JFD 2 JFD 7 CTS 1.7.e CTS 4.26.2 STS B3.6.1 Bases - LCO and SR 3.6.1.1 ITS B3.6.1 Bases - LCO and SR 3.6.1.1

ITS B3.6.1 Bases - LCO and SR 3.6.1.1 makes a number of changes to the wording of the corresponding STS B3.6.1 Bases Sections with regards to the applicability of the reactor building purge valves leakage testing. In light of Comment Number 3.6.3-4, which requires the retention of CTS 4.26.2 in ITS 3.6.3, ITS B3.6.1 Bases - LCO and SR 3.6.1.1 need to be revised to reflect this change to the ITS. **Comment:** Revise the ITS Bases markup to reflect the changes associated with Comment Number 3.6.3-4.

ANO-1 Response:

3.6.1-5 CTS 1.7.d

STS B3.6.1 Bases - BACKGROUND ITS B3.6.1 Bases - BACKGROUND ITS B3.6.3 Bases - BACKGROUND

STS B3.6.1 Bases - BACKGROUND states the following: "To maintain this leak tight barrier: "a. All penetrations...either: 2. Closed by... de-activated automatic valves secured in their closed position." ITS B3.6.1 Bases - BACKGROUND changes this sentence to delete the word "secured" and justifies the change as an editorial change. While the change brings the Bases into conformance with CTS 1.7.d, it conflicts with ITS B3.6.3 Bases - BACKGROUND which states that the de-activated automatic valves are secured in their closed position. **Comment:** Correct this discrepancy.

3.6.2 Reactor Building Air Locks

3.6.2-1 DOC A8

CTS 3.6.1

ITS 3.6.2 ACTION Notes 1, 2, and 3 and Associated Bases

CTS 3.6.1 is modified to add ITS 3.6.2 ACTION Notes 1, 2, and 3. This change is characterized as an Administrative change (DOC A8). DOC A8 states that these Notes "... are interpreted to be presently available in the CTS." While the staff may agree that Note 3 may be currently interpreted from structure and wording of the CTS to be presently available in the CTS, it does not see how the same conclusion can be reached for Notes 1 and 2. The CTS requires at least one door in each airlock to be locked closed and sealed during repair. Note 1 and its associates Bases allows the OPERABLE airlock door to be open and unlocked for repair purposes which the CTS would not. Thus, this aspect of the change would be a Less Restrictive (L) change. In addition the CTS does not allow for separate condition entry. If an airlock is inoperable one enters CTS 3.6.1, if a door on the other airlock becomes inoperable before the first door is restored to OPERABLE status, one does not restart the clock as in the ITS, but continues with the ACTION as written. Thus, the addition of both ITS 3.6.2 ACTION Notes 1 and 2 is a Less Restrictive (L) change. See Comment Number 3.6.2-4. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change. See Comment Number 3.6.2-4.

ANO-1 Response:

3.6.2-2 DOC A20

DOC LA1 JFD 2 STS SR 3.6.2.1 and Associated Bases ITS SR 3.6.2.1 and Associated Bases

See Comment Number 3.6.1-3. Comment: See Comment Number 3.6.1-3.

ANO-1 Response:

3.6.2-3 DOC M2

CTS 3.6.1 STS 3.6.2 ACTIONS ITS 3.6.2 ACTIONS

CTS 3.6.1 specifies the ACTIONS to follow for an inoperable reactor building. DOC M2 provides a justification for changing "be in Hot Standby" to "be in MODE 3." However, DOC M2 only addresses this change with regards to ITS 3.6.1 Condition B. No mention is made with regards to ITS 3.6.2 Condition D. **Comment:** Revise DOC M2 to make it applicable to ITS 3.6.2.

3.6.2-4 JFD 24

STS 3.6.2 ACTION Note 1, and REQUIRED ACTION A Note 2 ITS 3.6.2 ACTION Note 1, Required Action A Notes and Associated Bases

STS/ITS 3.6.2 ACTION Note 1 allows entry and exit through an inoperable airlock to perform repairs on the affected airlock components. STS 3.6.2 Required Action A Note 2 restricts this entry and exit if both air locks are inoperable. ITS 3.6.2 Required Action A does not contain this Note. JFD 24 justifies the deletion on the premise that STS 3.6.2 Required Action A Note 2 conflicts with the allowance in STS 3.6.2 ACTION Note 1 which allows unlimited entry and exit. JFD 24 also states that Note 2 would be inconsistent with the requirements inferred by the CTS. With regards to the latter item, Note 2 is not inconsistent, the CTS would limit entry and exit if two airlock doors were inoperable as discussed in Comment Number 3.6.2-1. In the former case there is no conflict, it just limits the time that entry and exit can be done when both air locks are inoperable. In addition, based on the justification the change would be considered as a generic change. **Comment:** Delete this generic change. See Comment Number 3.6.2-1.

ANO-1 Response:

3.6.2-5 JFD 24

STS B3.6.2 Bases - BACKGROUND ITS B3.6.2 Bases - BACKGROUND

The first sentence of the second paragraph in STS B3.6.2 Bases - BACKGROUND specifies the diameter of the airlock. ITS B3.6.2 Bases - BACKGROUND deletes this item by JFD 24. JFD 24 has nothing to do with this airlock description, it deals with the ACTION Notes. See Comment Number 3.6.2-4. **Comment:** Provide a discussion and justification for this deletion.

ANO-1 Response:

3.6.2-6 STS 3.6.2 Bases - C.1, C.2 and C.3 ITS B3.6.2 Bases - C.1, C.2 and C.3

The third paragraph, first sentence in STS B3.6.2 Bases - C.1, C.2 and C.3 states the following: "Additionally, the affected air lock(s) must..." ITS B3.6.2 Bases - C.1, C.2 and C.3 modifies this sentence by deleting the "(s)" from "Air Lock(s)," and justifies the deletion as editorial. Since the Condition deals with the inoperability of one or more air locks, the term "air lock(s)" is correct. **Comment:** Delete this change.

3.6.3 Reactor Building (RB) Isolation Valves

3.6.3-1 DOC A16

CTS Table 4.1-2, Item 8 ITS SR 3.6.3.5 and Associated Bases

CTS Table 4.1-2, Item 8 requires the automatic actuation or functioning of the RB Isolation Trip System on an 18 month frequency. The corresponding ITS SR is ITS SR 3.6.3.5. While the CTS phrase "functioning test" can be interpreted to mean "an actual or simulated actuation signal", the CTS seems explicit in that all automatic RB isolation valves including locked valves must be tested. The ITS exempts valves which are locked, sealed or otherwise secured in position. Thus the ITS is less restrictive than the CTS. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

ANO-1 Response:

3.6.3-2 DOC A19

CTS 1.7.c STS B3.6.3 Bases - BACKGROUND and LCO ITS B3.6.3 Bases - BACKGROUND AND LCO

CTS 1.7.c which refers to all non-automatic RB isolation valves is modified by DOC A19 to include check valves. DOC A19 states that check valves are considered as non-automatic valves. This is incorrect. The staff considers check valves when used as isolation valves as automatic valves. STS B3.6.3 Bases - BACKGROUND states this position and the discussion in STS B3.6.3 Bases - LCO reaffirms it when it differentiates between automatic power operated isolation valves and check valves. The Bases for this position can be found in 10 CFR 50 Appendix A, General Design Criteria 55, 56 and 57 which state that check valves may not be used as one of the automatic isolation valves for certain types of penetrations. Therefore the changes made to CTS 1.7.c and the first paragraph in ITS B3.6.3 Bases - BACKGROUND with regards to check valves are incorrect. In addition the deletion of the words "power operated" from second paragraph of ITS B3.6.3 Bases - LCO is incorrect. **Comment:** Revise the CTS/ITS markups and provide the appropriate discussions and justifications to reflect that check valves.

3.6.3-3 DOC A20

JFD 2 JFD 7 CTS 1.7.e CTS 4.4.1 CTS 4.26.2 STS SR 3.6.3.6 and Associated Bases

See Comment Numbers 3.6.1-3 and 3.6.3-4. **Comment:** See Comment Numbers 3.6.1-3 and 3.6.3-4.

ANO-1 Response:

3.6.3-4 DOC A20

JFD 7 CTS 1.7.c CTS 3.0.3 CTS 3.6.1 CTS 4.26.2 STS 3.6.3 Conditions A, B, and D, SR 3.6.3.1 SR 3.6.3.6 and Associated Bases ITS 3.6.3 Conditions A, B, SR 3.6.3.1 and Associated Bases

CTS 4.26.2 specifies that the RB purge valves be leak rate tested at a specified frequency. The CTS markup of CTS 4.26.2 implies that this item is to be relocated to ITS 5.0. This is unacceptable. Amendment Number 185 which implemented the changes associated with 10 CFR 50 Appendix J Option B did not change the requirements or frequencies associated with CTS 4.26.2. In addition the changes to the STS with regards to Option A versus Option B covered by the letter from Mr. Christopher I. Grimes to Mr. David J. Modeen, NEI, dated 11/2/95 and TSTF 52 as modified by staff comments of 10/96, 12/98 and 1/2000 do not relocate to the Containment Leakage Rate Testing Program the associated leak rate testing surveillance for purge valves (i.e., STS SR 3.6.3.6). The performance based allowance for extending the leakage rate testing frequencies associated with 10 CFR 50 Appendix J was determined by the staff to be not applicable to purge valve leakage testing. Therefore, this specification cannot be relocated to ITS 5.5.16 "Reactor Building Leakage Rate Testing Program". In addition, STS SR 3.6.3.6 and its associated Bases or a modification of the SR to reflect the CTS requirements which specifies that the RB purge valves must be leak tested on a specified frequency must be retained. Furthermore, since the surveillance is to be retained in the ITS, an appropriate ACTION needs to be included. Therefore, STS 3.6.3 Condition D or a modification based on the current ACTIONS for purge valve leakage (i.e., CTS 3.6.1 or CTS 3.0.3) needs to be added. Furthermore, ITS 3.6.3 Conditions A and B and SR 3.6.3.1 may need to be modified to conform to STS 3.6.3 Conditions A and B and SR 3.6.3.1 to reflect these changes. If, however, ITS 3.6.3 Conditions A and B are going to be used as the ACTIONS for a leaking purge valve, then appropriate justifications need to be provided for the change in Completion Times (CTS of 1 hour versus ITS of 4 hours). **Comment:**

Revise the CTS/ITS markup and provide the appropriate discussions and justification to reflect the retention of CTS 4.26.2 in the ITS as discussed above.

ANO-1 Response:

3.6.3-5 DOC M2

CTS 3.6.1 STS 3.6.3 ACTIONS ITS 3.6.3 ACTIONS

CTS 3.6.1 specifies the ACTIONS to follow for an inoperable reactor building. DOC M2 provides a justification for changing "be in Hot Standby" to "be in MODE 3". However, DOC M2 only addresses this change with regards to ITS 3.6.1 CONDITION B. No mention is made with regards to ITS 3.6.3 CONDITION D. **Comment:** Revise DOC M2 to make it applicable to ITS 3.6.3.

ANO-1 Response:

3.6.3-6 DOC M4

CTS 1.7.c CTS 3.6.5 ITS SR 3.6.3.2, SR 3.6.3.3 and Associated Bases

CTS 3.6.5 verifies all manual RB isolation valves are locked closed prior to criticality following a refueling shutdown. CTS 3.6.5 is modified by DOC M4 to reflect the frequencies specified in ITS SR 3.6.3.2 and SR 3.6.3.3. See Comment Number 3.6.3-7 for concern with regards to the frequency changes. DOC M4 and CTS 3.6.5 address only manual RB isolation valves. ITS SR 3.6.3.2 and SR 3.6.3.3 applies to manual RB isolation valves. Even though CTS 1.7.c addresses blind flanges, the CTS markup does not show the addition of STS SR 3.6.3.2 and SR 3.6.3.3 as it applies to blind flanges. Comment: Revise the CTS markup and provide an appropriate discussion and justification for the More Restrictive change of adding the surveillances for blind flanges.

3.6.3-7 DOC M4

JFD 19 CTS 3.6.5 STS SR 3.6.3.4 and Associated Bases ITS SR 3.6.3.3 and Associated Bases

STS SR 3.6.3.4 specifies a frequency of "Prior to entering MODE 4 from MODE 5 if...days." ITS SR 3.6.3.3 modifies this frequency to "Once prior to entering...". The addition of the word "once" is considered as a generic change. This generic change was submitted generically before, but was rejected by the staff. **Comment:** Delete this generic change.

ANO-1 Response:

3.6.3-8 DOC M5

CTS 3.0.3 CTS 3.6.1 CTS 3.6.6 ITS 3.6.3 ACTIONS B, C, and D, and Associated Bases

CTS 3.6.1 and 3.6.6 are modified by DOC M5 to add ITS 3.6.3 ACTIONS B and C. DOC M5 states that the change is More Restrictive even though the CTS has these implied conditions. The staff disagrees. With the implied CTS conditions the changes are Administrative and Less Restrictive (L). The addition of ACTION B is an Administrative change. With two valves in a penetration inoperable, CTS 3.6.6 cannot be met (other valve not OPERABLE) therefore either CTS 3.0.3 or 3.6.1 is entered. This would be the equivalent of ITS 3.6.3 ACTIONS B and D. Thus the change is an Administrative change. The addition of ITS 3.6.3 ACTION C is a Less Restrictive (L) change. Using the same argument CTS 3.6.6 cannot be met (No second valve OPERABLE), therefore CTS 3.0.3 or 3.6.1 is entered. The change is a Less Restrictive (L) change because the Completion Time goes from 1 hour to 72 hours. **Comment:** Revise the CTS markup and provide the appropriate discussions and justifications for this Administrative and Less Restrictive (L) changes.

3.6.3-9 DOC M5

JFD 6 CTS 3.6 STS 3.6.3 ACTION C and Associated Bases ITS 3.6.3 ACTION C and Associated Bases

STS 3.6.3 ACTION C specifies the required ACTIONS to be taken for an inoperable containment isolation valve in a penetration flow path with only one containment isolation valve and a closed system. STS 3.6.3 ACTION C has been modified by TSTF 30 Rev. 3 to extend the Completion Time from 4 hours to 72 hours. This modification in the ITS is in accordance with TSTF 30 which is acceptable. However, the Bases changes are not in accordance with TSTF-30 Rev. 3 or provide additional justification for the deviations.

ANO-1 Response:

3.6.3-10

DOC L12 CTS 3.6 ITS SR 3.6.3.1

CTS 3.6 is modified by CTS Insert 54A. CTS Insert 54A consists of two pages which affect the CTS markup for ITS 3.6.3. One page shows DOC L12 as applying to ITS SR 3.6.3.1 and SR 3.6.3.2 Notes. The other page shows DOC L12 as applying to ITS SR 3.6.3.2 and SR 3.6.3.3 Notes. ITS SR 3.6.3.1 does not contain any Notes. **Comment:** Correct this discrepancy.

ANO-1 Response:

DOC LA1

3.6.3-11

JFD 35 CTS 1.7.c, 1.7.d, and 3.6.6 ITS 3.6.3 ACTION Note 1 and Associated Bases

The CTS markup of CTS 1.7 shows that CTS 1.7.c is the Bases for ITS 3.6.3 ACTION Note 1. This is incorrect. It is stated in JFD 35 that the phrase "closed as required" is the basis for this addition. The staff disagrees. The phrase "closed as required" does not imply that the manual valves may be opened intermittently under administrative controls. The staff interprets the phrase to mean that only those manual valves that are required to be closed are closed and are to remain closed. In addition, based on CTS 1.7.d and 3.6.6 it does not seem that closed deactivated automatic valves can be opened. The ITS through ITS 3.6.3 ACTION Note 1 would allow this. **Comment:** Revise the CTS markup and provide a discussion and justification for the Less Restrictive (L) change of adding ITS 3.6.3 ACTION Note 1.

3.6.3-12 JFD 7 STS 3.6.3 ACTION Note 4

ITS 3.6.3 does not include STS 3.6.3 ACTION Note 4. The justification used for deleting this Note - JFD7 - states that the Note is only applicable to purge valve leakage and since ITS 3.6.3 does not contain a purge valve leakage surveillance the Note is not needed. This is incorrect. Based on this justification alone because of Comment Number 3.6.3-4, the Note needs to be retained. However, regardless of the resolution of Comment Number 3.6.3-4, the Note still needs to be retained in the ITS. The reason for this is that the ITS does not allow for cascading through TS. Even though the ACTIONS of ITS 3.6.3 are met for inoperable isolation valve(s), there may be leakage from the inoperable valve or the valve used to isolate the penetration which causes the overall containment leakage rate to exceed acceptance criteria. This Note provides directions on how to address this situation. **Comment:** Revise the CTS/ITS markups and provide an appropriate discussion and justification for this change.

ANO-1 Response:

JFD 7

3.6.3-13

STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES

The fourth paragraph of STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES discusses the single failure criterion and common mode failures with regards to containment isolation valves. ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES deletes this paragraph. The justification used for this deletion is JFD 7. JFD 7 only applies to and discusses changes in the ITS as they affect RB purge valves, not RB isolation valves. **Comment:** Provide a discussion and justification for this deletion.

ANO-1 Response:

3.6.3-14 JFD 7

STS 3.6.3 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES

The fifth paragraph of STS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES deals with why certain containment purge valves are required to be sealed closed during MODES 1 though 4 and how the single-failure criterion applies in these cases. ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES deletes this paragraph. Based on ITS B3.6.3 Bases discussions, the SRs associated with RB purge valves, and the discussion provided in JFD 7 which is used to justify deletion of the paragraph, it would seem that the subject matter is applicable to the ANO-1 RB purge valves and that the paragraph should be retained. **Comment:** Provide a discussion and justification showing why this paragraph is not applicable to ANO-1.

3.6.3-15

JFD 30 STS B3.6.3 Bases - LCO ITS SR 3.6.3.4 and B3.6.3 Bases - BACKGROUND, APPLICABLE SAFETY ANALYSES, LCO and SR 3.6.3.4

The last sentence of the second paragraph of STS B3.6.3 Bases - LCO states the following: "The valves covered by this LCO are listed along with their associated stroke times in the FSAR (Ref. 4)." ITS B3.6.3 Bases - LCO deletes the phrase "along with their associated stroke times" from this sentence. This change is indicated in the ITS markup as an editorial correction. This is incorrect. The deletion if acceptable should be tied to JFD 30. JFD 30 deletes from the various ITS B3.6.3 Bases Sections references and discussions with regards to RB isolation valve response time. JFD 30 states that the ANO-1 analyses for RB isolation set no specific valves for RB isolation valve response times. Based on this, the various discussions on response times is deleted from the ITS B3.6.3 Bases which is acceptable for those other areas. However, JFD 30 also states that RB isolation "valve response times are maintained in accordance with industry standards for sizing valve operators." This along with ITS SR 3.6.3.4 which requires the RB isolation valve isolation time be verified to be within limits, suggests that there are documents which list the stroke time for all automatic RB isolation valves. Thus, the deleted phrase needs to be retained in ITS B3.6.3 Bases-LCO and the appropriate documents referenced so that the ITS users know where to find this information to verify compliance with the SR. **Comment:** Revise ITS B3.6.3 Bases-LCO to include the phrase "along with their associated stroke time" and the documents that contain the times.

ANO-1 Response:

3.6.3-16 JFD 34 STS B3.6.3 Bases-LCO ITS B3.6.3 Bases-LCO

The second sentence of the first paragraph to STS B3.6.3 Bases-LCO states the following: "The containment isolation valve safety function is... establishing the containment boundary during a DBA." ITS B3.6.3 Bases-LCO deletes the phrase "during a DBA" from this sentence using the justification provided by JFD 34. JFD 34 states that the DBA considers certain conditions as initial conditions. The sentence has nothing to do with initial DBA conditions; it is only stating that the safety function applies during a DBA. By deleting this phrase, the sentence would imply that the safety function is applicable for all conditions.

3.6.3-17 JFD 40 STS B3.6.3 Bases-LCO ITS B3.6.3 Bases-LCO

> The third paragraph of STS B3.6.3 Bases-LCO describes the OPERABILITY for normally closed isolation valves. The purpose of the LCO Bases discussion is to describe what constitutes an OPERABLE system, component or structure. ITS B3.6.3 Bases-LCO modifies this paragraph to try to correct what the licensee perceives as an erroneous description. The staff disagrees. The STS paragraph deals with those RB isolation valves, manual or otherwise that during normal operation are closed. This defines for these valves their OPERABILITY. Thus the changes proposed are unacceptable. **Comment:** Delete these changes.

ANO-1 Response:

3.6.3-18 STS B3.6.3 Bases- APPLICABLE SAFETY ANALYSES ITS B3.6.3 Bases- APPLICABLE SAFETY ANALYSES

> The second sentence of the first paragraph in STS B3.6.3 Bases-APPLICABLE SAFETY ANALYSES states the following: "As part of the containment boundary, containment isolation valve OPERABILITY supports leak tightness of the containment." ITS B3.6.3 Bases - APPLICABLE SAFETY ANALYSES modifies this sentence by substituting "isolation" for "leak tightness." Isolation of the containment does not connote leak tightness; however, containment isolation valve OPERABILITY requires a certain degree of leak tightness in order to meet the requirements of 10 CFR 50 Appendix J. Thus the STS words are correct. **Comment:** Delete this change.

ANO-1 Response:

3.6.3-19 STS 3.6.3 ACTION Note 1 and Associated Bases ITS B3.6.3 ACTION Note 1 and Associated Bases

> The first paragraph, first sentence of STS B3.6.3 Bases - ACTIONS state the following: "The ACTIONS are modified by a Note allowing penetration flow paths, except..." ITS B3.6.3 Bases - ACTIONS modifies this sentence by adding "with inoperable reactor building isolation valves" between "path" and ", except...". The intent of the STS Note is to allow any closed containment isolation valve except certain purge valves to be opened under administrative controls and restrict it to just those valves closed as a result of Required Actions. It also prevents unnecessary entry into the ACTIONS. The proposed change would limit the STS intent. **Comment:** Delete this change.

3.6.3-20 STS B3.6.3 Bases - ACTIONS ITS B3.6.3 Bases - ACTIONS

The second sentence of the first paragraph in STS B3.6.3 Bases - ACTIONS states the following: "The administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room." ITS B3.6.3 Bases-ACTIONS modifies this sentence by substituting "dedicated individual" for "dedicated operator at the valve controls". This is unacceptable since it changes the intent of the administrative controls. The intent is that the dedicated individual/operator can respond quickly to a condition which requires the valve to be closed. The ITS change would allow the individual/operator to be anywhere in the plant, thus he would not be able to respond quickly to the condition requiring valve isolation. **Comment:** Delete this change.

ANO-1 Response:

3.6.4 Reactor Building Pressure

3.6.4-1 DOC M13

JFD 20 CTS 3.6. STS SR 3.6.4.1 and SR 3.6.5.1 ITS SR 3.6.4.1 and Associated Bases

STS SR 3.6.4.1 verifies the containment pressure is within limits on a frequency of every 12 hours. ITS SR 3.6.4.1 change the frequency to every 24 hours and is justified in DOC M13 and JFD 20. The justification for the change is based on ANO-1 operating experience related to trending and consistency with the frequency specified in STS SR 3.6.5.5 for containment temperature. With regards to the former justification no data or sufficient information was provided in DOC M13 or JFD 20 to lead to the conclusion that once per 24 hours is an acceptable plant specific change for the SR. As to the latter justification consistency with another STS specification is not adequate justification for a change, and would lead the staff to conclude that the change is generic. **Comment:** Revise the ITS markup to delete this generic frequency change or provide adequate discussion and justification based on current licensing basis, system design, or current operating practice to show that a frequency of 24 hours is plant specific to ANO-1.

3.6.4-2 DOC M13

DOC M14 JFD 14 CTS 3.6.4 ITS LCO 3.6.4, SR 3.6.4.1 and Associated Bases

CTS 3.6.4 specifies that the reactor building internal pressure limits shall be between a 5.5 inches Hg vacuum and 3.0 psig. ITS LCO 3.6.4 and SR 3.6.4.1 specify the limits as \geq - 1.0 psig and \leq 3.0 psig. DOC M14 states that 5.5 inches Hg vacuum is equivalent to -2.7 psig, and that this valve conflicts with the valve assumed in the ANO-1 ECCS analysis which is -1.0 psig. Even though the change is a More Restrictive change, this is a change in the current licensing basis. The 5.5 inches Hg vacuum was part of the original licensing basis and there must have been a reason this number was selected. See Comment Number 3.6.4-3 for one possible reason. As such, the staff considers this change to be a beyond scope of review item for this conversion. **Comment:** Delete this change. See Comment Number 3.6.4-3 for one possible reason.

ANO-1 Response:

3.6.4-3 JFD 14

JFD 37 JFD 39 STS B3.6.4 Bases ITS B3.6.4 Bases

ITS B3.6.4 Bases makes numerous changes to STS B3.6.4 Bases to remove the discussions with regards to inadvertent containment spray issues. These discussions are replaced by discussions related to ANO-1 DBA and ECCS analyses. The justification used to delete the inadvertent containment spray issues - JFD 37 - states that requirements related to containment structural integrity and internal pressure during an inadvertent containment spray actuation are not related to the criteria of 10 CFR 50.36. The inadvertent containment spray actuation as stated in STS B3.6.4 is part of the design basis for containment, and was one of the factors taken into the consideration for specification retention and satisfying the criteria of 10 CFR 50.36. Furthermore, the current pressure limit of 5.5 inches Hg vacuum may have been selected based on this requirement, which would require the retaining of this value. See Comment Numbers 3.6.4-2 and 3.6.5-6. **Comment:** Delete this change, or provide a discussion and justification for this change based on current licensing basis, system design or operating constraints.

3.6.4-4 JFD 14

JFD 39

ITS B3.6.4 Bases - APPLICABLE SAFETY ANALYSES

ITS B3.6.4 Bases - APPLICABLE SAFETY ANALYSES - Insert B3.6-30C states the following: "The LCO limit of 2.0 psig does not consider instrument uncertainty. The LCO limit of -1.0 psig is considered to be as an indicated valve." No justification or explanation is provided for the 2.0 psig value. Where does this number come from and is it the correct value? In addition, the staff believes that these statements are more appropriate for either the LCO Bases or SR 3.6.4.1 Bases write-ups rather than the APPLICABLE SAFETY ANALYSES. **Comment:** Revise the ITS Bases markup as appropriate and provide the necessary discussions and justification for this change.

ANO-1 Response:

3.6.5 Reactor Building (RB) Spray and Cooling Systems

3.6.5-1 DOC A10

DOC M19 JFD 21 CTS 3.3.1 and 3.3.6 ITS 3.6.5 ACTIONS E, F and Associated Bases

CTS 3.3.6 specifies that if the requirements of CTS 3.3.1 for one OPERABLE RB spray train and one OPERABLE RB cooling train are not met in MODES 3 and 4, then the plant be in Cold Shutdown (MODE 5) within 72 hours. The CTS markup modifies this ACTION to allow 36 hours to restore the inoperable component to OPERABLE status, before a shutdown is initiated, and requires that the plant be in COLD SHUTDOWN (MODE 5) within the following 36 hours. The CTS markup designates the change of restore within 36 hours as an Administrative change and justifies the change in DOC A10. This is incorrect. Even though the overall time to reach MODE 5 does not change (72 hours), the specifying of time to restore OPERABILITY where none was specified before makes the change a More Restrictive change. **Comment:** Revise the CTS markup and provide a discussion and justification for this More Restrictive change.

3.6.5-2 DOC L19

CTS 3.3.1. (I), and 3.3.4.(D) ITS LCO 3.6.5, SR 3.6.5.1, and Associated Bases

CTS 3.3.1.(I) and 3.3.4.(D) requires the valves associated with the RB Spray System and RB Cooling System to be OPERABLE or locked in the engineered safety position. ITS LCO 3.6.5 and 3.6.6 will retain these requirements as a condition of system OPERABILITY. The ITS will allow these valves to be verified OPERABLE by actuation to the correct position or by being locked sealed or otherwise secured in position. According to DOC L19 the expanded options for controlling valve position makes the change a Less Restrictive (L) change. This is not totally correct. As currently written, the CTS would require that all manual valves be locked in position. The ITS based on the wording of ITS SR 3.6.5.1 and SR 3.6.6.1 does not require all manual valves to be locked, sealed or otherwise secured in position. This aspect of the change has not been addressed or justified. See Comment Number 3.6.6-2. **Comment:** Revise the CTS markup to reflect the above discussion and provide additional discussion and justification for this Less Restrictive (L) change. See Comment Number 3.6.6-2.

ANO-1 Response:

3.6.5-3 DOC LA3

JFD 21 CTS 4.5.2.2.1 STS B3.6.6 Bases SR 3.6.6.4 ITS SR 3.6.5.4 and Associated Bases

CTS 4.5.2.2.1 verifies RB spray pump OPERABILITY. The CTS markup shows the entire specification as being relocated to the IST program. This is incorrect. The first part of the specification is the basis for ITS SR 3.6.5.4. and should be marked accordingly. In addition, no justification is provided to show that the pump start frequency of "not to exceed 3 months" is the current frequency in the IST program for these pumps. If not, then the ITS frequency of "In accordance with the Inservice Testing Program" is either a More Restrictive or Less Restrictive (L) change depending on whether the current IST frequency is greater than or less than the CTS frequency. In addition the markup of ITS B3.6.5 Bases - SR 3.6.5.4 shows that the STS words "confirms one point on the pump design curve" as being deleted, and that the change is editorial. This is incorrect. The phrase should either be retained or modified to reflect the requirement in CTS 4.5.2.2.1 that "the discharge pressure and flow are within ± 10% of a point on the pump head curve." See Comment Number 3.6.5-4 for additional concerns on ITS SR 3.6.5.4. Comment: Revise the CTS/ITS markups to reflect the above discussion and provide additional discussion and justification for the More or Less Restrictive (L and LA) changes.

3.6.5-4 DOC LA3

JFD 21 JFD 31 CTS 3.3.1 and 3.3.4 CTS 4.5.2.1 and 4.5.2.2 ITS SR 3.6.5.1 through SR 3.6.5.7 and Associated Bases

CTS 4.5.2.1 and 4.5.2.2 specify the surveillance to be performed on the components associated with the RB Spray and RB Cooling Systems. Based on the wording and structure of the CTS surveillances, the CTS requires that all components - pumps, valves, fans, coolers, etc., be tested regardless of whether the component is required to be OPERABLE in accordance with CTS 3.3.1 or 3.3.4. The corresponding ITS SRs - SR 3.6.5.1 through SR 3.6.5.7 limit the applicability of the SRs to those systems and components that are required by the ITS LCO 3.6.5, i.e., in MODES 3 and 4 only the components in the required train of RB spray and RB cooling are to be tested. No justification is provided for this Less Restrictive (L) change. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

ANO-1 Response:

3.6.5-5 JFD 21

STS 3.7.2 ACTIONS A, B and Associated Bases ITS 3.6.5 ACTION A, B, C, and D and Associated Bases

ITS B3.6.5 Bases - D.1 states the following: "If the Required Actions and associated Completion Times are not met, the unit must be brought to a MODE in which the LCO, as modified by the Note does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours." These sentences are slightly confusing, particularly when one considers the phrase "as modified by the Note" and whether it applies here or not. It is recommended that since the STS 3.7.2 ACTIONS A and B are similar in structure and intent to ITS 3.6.5 ACTIONS A, B, C, and D, that wording similar to STS B3.7.2 Bases - B.1 be used for the above sentences in ITS B3.6.5 Bases-D.1. **Comment:** Revise the ITS markup to reflect the above discussion.

ANO-1 Response:

3.6.5-6 JFD 37

STS B3.6.6. Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES

ITS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES modifies the wording in STS B3.6.6. Bases - APPLICABLE SAFETY ANALYSES to remove the discussion with regards to inadvertent containment spray issues. The same discussion and requirements imposed by Comment Numbers 3.6.4-2 and 3.6.4-3 are applicable here. **Comment:** See Comment Numbers 3.6.4-2 and 3.6.4-3. **ANO-1 Response:**

3.6.5-7 CTS 4.5.2.1.1.a and Associated Bases ITS SR 3.6.5.5, SR 3.6.5.6 and Associated Bases

CTS 4.5.2.1.1.a specifies that the RB Spray System, system test shall be performed except that the RB inlet valves shall not receive the Actuation Signal to prevent water entering the nozzles. The ITS breaks this CTS surveillance into two surveillances - ITS SR 3.6.5.5 and SR 3.6.5.6. ITS SR 3.6.5.5 verifies that each automatic containment spray valve that is not locked, sealed or otherwise secured in position actuates to its correct position on an actuation signal. (See Comment Number 3.6.5-8 for additional concerns with regards to actuation signal). It is implied from CTS 4.5.2.1.1.a and its associated Bases that these RB inlet valves are automatic valves, but it is not clear. If they are manual valves then there is no problem. However, if these valves are automatic, then there is the concern as to when these valves will be tested per ITS SR 3.6.5.5 since the locked, sealed, and secured exception in the SR could result in the valves never being tested for this SR. The exception from testing of locked, sealed or otherwise secured valves was only intended to apply to those valves that during normal operating conditions are locked, sealed, or otherwise secured in position. Comment: Specify whether the RB inlet valve is manual or automatic. If automatic, discuss when and how this valve will be tested in accordance with ITS SR 3.6.5.5. See Comment Number 3.6.5-8.

ANO-1 Response:

3.6.5-8 CTS 4.5.2.1.1.a and 4.5.2.1.2.c.1 ITS SR 3.6.5.5, SR 3.6.5.6, 3.6.5.7 and Associated Bases

CTS 4.5.2.1.1.a and 4.5.2.1.2.c.1 require a system test of the RB Spray System and RB Cooling System, respectively. These specifications specify that a test signal shall be used to demonstrate system actuation. The ITS breaks these CTS surveillances up into three surveillances - ITS SR 3.6.5.5, SR 3.6.5.6, and SR 3.6.5.7, however the ITS tests may be initiated by either an actual or simulated actuation signal. The CTS markup does not show this change "test signal" to "actual or simulated actuation" Using a test signal connotes only a simulated actuation. By adding the words "actual actuation" the change becomes a Less Restrictive (L) change. **Comment:** Revise the CTS markup and provide a discussion and justification for this Less Restrictive (L) change.

3.6.5-9 CTS 4.5.2.1.2.b.

ITS SR 3.6.5.2 and Associated Bases

CTS 4.5.2.1.2.b specifies that at least once per 31 days each RB cooling train fan shall be started and operated for at least 15 minutes. The corresponding ITS SR is ITS SR 3.6.5.2. CTS 4.5.2.1.2.b. (1) specifies that for this test, the fan if not already operating shall be started from the control room. ITS SR 3.6.5.2 and its associated Bases does not specify this requirement. **Comment:** Revise the CTS/ITS markup to specify the location of the requirements in CTS 4.5.2.1.2.b.(1). Provide the appropriate discussions and justifications associated with this change.

ANO-1 Response:

3.6.5-10 STS B3.6.5 Bases- A.1 and C.1 ITS B3.6.5 Bases-A.1 and B.1

The last sentence in both STS B3.6.5 Bases A.1 and B.1 states the following: "Refer to Section 1.3 for a more detailed discussion on the purpose of the "from discovery of failure to meet the LCO" portion of the Completion Time." ITS B3.6.5 Bases- A.1 and B.1 deletes this statement and justifies it as an editorial correction. This is incorrect. The purpose of the Bases ACTIONS discussions is to provide a justification and purpose for the ACTION, its remedial measures and Completion Times. This sentence by referring to Section 1.3 provides the justification and purpose for this unique Completion Time and thus should be retained. **Comment:** Delete this change.

ANO-1 Response:

3.6.6 Spray Additive System

3.6.6-1 JFD 16

ITS B3.6.6 Bases - BACKGROUND

The second sentence in ITS B3.6.6 Bases - BACKGROUND, Insert B3.6-45B states the following: "When the valves are open, the sodium hydroxide is ready to be into the RB Spray System headers." The sentence does not make sense and seems to be incomplete. **Comment:** Correct this discrepancy.

3.6.6-2 DOC L19

CTS 3.3.4.(D) ITS LCO 3.6.6, SR 3.6.6.1, and Associated Bases

See Comment Number 3.6.5-2. Comment: See Comment Number 3.6.5-2

ANO-1 Response:

3.6.7 Hydrogen Recombiners

3.6.7-1 DOC LA1

CTS 4.12.1.a and 4.12.1.b.3 ITS B3.6.7 Bases - SR 3.6.7.3

CTS 4.12.1.b.3 verifies the integrity of the electrical heater circuits by performing a resistance to ground test. The surveillance also states that this test is to be performed following the performance of CTS 4.12.1.a. The CTS markup shows this portion (test performance following CTS 4.12.1.a) as being relocated by DOC LA1. DOC LA1 states that this statement is relocated to ITS B3.6.7 Bases - SR 3.6.7.3. ITS B3.6.7 Bases - SR 3.6.7.3 does not contain this statement, and DOC LA1 does not justify the Less Restrictive change associated with the deletion of the phrase. **Comment:** Revise the ITS Bases markup to include this statement or provide a discussion and justification for its deletion.