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Docket Nos. 50-348  
50-364

10 CFR 50.90

U.S. Nuclear Regulatory Commission  
ATTN.: Document Control Desk  
Washington, DC 20555-0001

Joseph M. Farley Nuclear Plant  
Response to Request for Additional Information Related to  
Conversion to the Improved Technical Specifications – Chapters 3.6 and 5.0

Ladies and Gentlemen:

By letters dated March 12, 1998, and April 24, 1998, Southern Nuclear Operating Company (SNC) submitted the Farley Nuclear Plant (FNP) - specific Improved Technical Specifications (ITS) conversion documentation packages. By letter dated August 20, 1998, SNC submitted an electronic copy of the Discussion of Changes (DOCs) and Significant Hazards Evaluations (SHEs) associated with the ITS conversion. Included with that letter were hard copies of changes to the original submittal to correct minor editorial errors and inconsistencies within the package. NRC letter dated August 21, 1998, requested SNC provide additional information. Attachment I provides the SNC responses to these questions. Attachment II includes proposed revisions to the previously submitted license amendment request related to this Request for Additional Information (RAI), grouped by RAI number.

By letter dated October 20, 1998, SNC stated in response to NRC letter dated September 8, 1998, the intent to revise the ITS submittal to address NRC Staff comments concerning Technical Specification requirements for Plant Staff Qualifications. The changes to the package associated with this issue are included in Attachment III.

Clean-typed copies of the affected ITS pages are not included. A complete clean-typed copy of the FNP ITS will be re-submitted at the end of the NRC review process.

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Mr. D. N. Morey states that he is a Vice President of Southern Nuclear Operating Company and is authorized to execute this oath on behalf of Southern Nuclear Operating Company and that, to the best of his knowledge and belief, the facts set forth in this letter and attachments are true.

If there are any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

*D. N. Morey*  
Dave Morey

Sworn to and subscribed before me this 20<sup>th</sup> day of November 1998

Martha Gayle Dow  
Notary Public

My Commission Expires: November 1, 2001

WAS/clt:ITSRAI\_1.DOC

Attachments

cc: Mr. L. A. Reyes, Region II Administrator  
Mr. J. I. Zimmerman, NRR Project Manager  
Mr. T. P. Johnson, Plant Farley Sr. Resident Inspector  
Dr. D. E. Williamson, State Department of Public Health

**ATTACHMENT I**

**SNC Response to NRC Request for Additional Information Related to  
Conversion to the Improved Technical Specifications - Chapters 3.6 and 5.0**



## SNC Response to NRC RAI Related to Chapter 3.6

### 3.6.1 Containment

#### Question:

- 3.6.1-1        DOC 1.0-6LA  
                  CTS 1.6.b  
                  ITS B3.6.1 Bases - **BACKGROUND**

CTS 1.6 defines CONTAINMENT INTEGRITY. A markup of CTS 1.6 is provided in the CTS markup of CTS 1.0. DOC 1.0-6LA states that the definition of CONTAINMENT INTEGRITY is deleted from the CTS/ITS and that the definition requirements have been relocated to the Bases for ITS 3.6.1. This justification is incorrect. CTS 1.6.b states that "All equipment hatches are closed and sealed." ITS B3.6.1 Bases - BACKGROUND states the following: "To maintain this leak tight barrier: c. All equipment hatches are closed; and..." The requirement for sealing the equipment hatches has been deleted. No justification is provided for this Less Restrictive change. **Comment:** Provide a discussion and justification for this Less Restrictive change.

#### SNC Response:

DOC 1.0-6LA states that the information contained in the CONTAINMENT INTEGRITY definition is implicit to the operability of the Containment. The information in the definition is moved into the bases discussion of the Containment LCO (LCO 3.6.1) with the exception of the containment leakage rates (item "d" of the Containment Integrity definition) which are explicit surveillance requirements in the applicable Containment TS. The STS Bases in NUREG-1431 do not include the phrase "and sealed" as found in the CTS definition for CONTAINMENT INTEGRITY. However, the STS Bases adds the phrase "To maintain this leak tight barrier." In the conversion to the format and content of the STS, the terms "sealed" and "leak tight" were deemed to be equivalent. Adding the term "sealed" would be redundant to the words already contained in the STS Bases. Therefore, to avoid redundancy and confusion, the phrase "and sealed" was effectively incorporated into the Bases by the term "leak tight" in the conversion.

#### Question:

- 3.6.1-2        DOC 3/4.6.1.1-6LA  
                  CTS 4.6.1.1.a \*Footnote  
                  ITS B3.6.1 Bases - **BACKGROUND**

The \*footnote to CTS 4.6.1.1.a verifies the status of the equipment hatch. This verification of equipment hatch status has been relocated to ITS B3.6.1 Bases BACKGROUND. DOC 3/4.6.1.1-6LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from



## SNC Response to NRC RAI Related to Chapter 3.6

the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

### **SNC Response:**

DOC 3/4.6.1.1-6LA states the following: "In the STS, the Containment operability requirement pertaining to the equipment hatch is discussed in the STS LCO 3.6.1 bases as part of the overall operability requirements for Containment." The ITS BACKGROUND section discusses the fact that the equipment hatches are closed to maintain a leak tight barrier. The ITS LCO section states that compliance with this LCO will ensure a containment configuration, including equipment hatches, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. For a system to be considered operable, the definition of operability for the system must be satisfied and the associated Surveillance requirements must be met. In the STS, information related to the design and configuration of a system which relate to meeting the operability requirements of the LCO is moved to the Bases. As the equipment hatch is part of the design of the containment and SR 3.6.1.1 ensures that the configuration of the equipment hatch is capable of maintaining leakage rates within limits, it is appropriate to move this redundant information to the Bases. DOC 3/4.6.1.1-6LA has been revised to reflect a justification similar to that above.

### **Question:**

3.6.1-3        DOC 3/4.6.1.6-2A  
                  DOC 3/4.6.1.6- ILA  
                  CTS 3.6.1.6 ACTIONS  
                  ITS 3.6.1 ACTIONS and Associated Bases

The CTS markup of CTS 3/4.6.1.6 shows that the entire specification except for the shutdown requirement of the ACTION statement as being relocated to a licensee controlled document (DOC 3/4.6.1.6-1LA). This relocation designation for CTS 3.6.1.6 ACTIONS is incorrect. While the shutdown portion of the ACTION statement is correctly marked up to indicate it becomes ITS 3.6.1 ACTION B and justified as an Administrative change, the allowed outage time of 24 hours is not appropriately marked up or justified. The correct change would show that the allowed outage time portion of CTS 3.6.1.6 ACTIONS is not relocated out of TS but is incorporated into ITS 3.6.1 ACTION A. Thus the 24 hour allowed outage time is changed to a 1 hour Completion Time, and the change is considered as More Restrictive rather than Less Restrictive - Generic (LA). See Comment Number 3.6.1-4, 3.6.1-5 and 3.6.1-6. **Comment:** Revise the CTS markup of CTS 3.6.1.6 ACTIONS to show that it has been reformatted and changed to conform to ITS 3.6.1 ACTIONS and provide the appropriate discussion and justification for the More Restrictive change in the Completion Times. See Comment Numbers 3.6.1-4, 3.6.1-5, and 3.6.1-6.

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### SNC Response:

The completion time of 1 hour in Condition A of ITS LCO 3.6.1 is applied once containment is determined to be inoperable. This occurs when the definition of operability for containment is no longer met or it is known that a required surveillance cannot be met. As stated in DOC 3/4.6.1.6-1LA, the requirements for containment structural integrity are maintained in the surveillance requirements of LCO 3.6.1, "Containment" as SR 3.6.1.1 and SR 3.6.1.2 and in Specification 5.5.6, "Pre-Stressed Concrete Containment Tendon Surveillance Program," in the Administrative Controls section of the STS. With regard to the above staff comment, Condition A of ITS LCO 3.6.1 would not be entered until surveillance 3.6.1.2 was not met. SR 3.6.1.2 continues to be met until the requirements of the Pre-Stressed Concrete Containment Tendon Surveillance Program are not met. CTS 3/4.6.1.6 contains actions which allow 24 hours to restore any non-conforming conditions before requiring a plant shutdown to Mode 5. In the conversion documentation, the markups show that the details of CTS 3/4.6.1.6, including the 24 hour restoration time and specific guidance for performing the required surveillances are moved into a program outside of the Technical Specifications similar to the existing programs for ASME Inservice Testing and Containment Leakage. Therefore, the 24-hour allowance for restoration of the structural integrity of containment to within the limits currently contained in CTS 3/4.6.1.6 would be maintained within the Pre-Stressed Concrete Containment Tendon Surveillance Program. As such, SR 3.6.1.2 would continue to be met until the 24 hour allowance to correct any non-conforming condition had been exceeded within the Pre-Stressed Concrete Containment Tendon Surveillance Program. However, based on discussions with the NRC staff, in order to preclude misinterpretations a new Condition has been added to ITS LCO 3.6.1 to incorporate the CTS licensing basis.

### Question:

3.6.1-4        DOC 3/4.6.1.1-91-A  
                  DOC 3/4.6.1.6-1LA  
                  CTS 4.6.1.6  
                  ITS SR 3.6.1.2 and Associated Bases  
                  ITS 5.5.6

The CTS markup of CTS 3/4.6.1.1 shows the addition of ITS SR 3.6.1.2. This change is designated as 3/4.6.1.1-9LA which indicates that the information is relocated from the CTS to a licensee controlled document. ITS SR 3.6.1.2 combines all the requirements of CTS 4.6.1.6 into a program which is described in ITS 5.5.6. Since there is no change in requirements, only a change in presentation and format, the addition of ITS SR 3.6.1.2 in CTS 3/4.6.1.1 is considered as an Administrative change not a Less Restrictive - Generic (LA) change. See Comment Numbers 3.6.1-3, 3.6.1-5 and 3.6.1-6 for additional concerns with regards to CTS 3/4.6.1.6. **Comment:** Revise the CTS markup of CTS 3/4.6.1.1 to show the addition of ITS SR 3.6.1.2 as an Administrative change and provide any additional discussion and justification, as necessary. See Comment Numbers 3.6.1-3, 3.6.1-5, and 3.6.1-6.

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**SNC Response:**

While the requirement for containment integrity is maintained in the technical specifications in SR 3.6.1.2 and Specification 5.5.6, the details of CTS 3/4.6.1.6 are moved to a program outside of the technical specifications. Therefore, this change is more significant than a change in format and presentation and the categorization should remain as currently submitted.

**Question:**

3.6.1-5            DOC 3/4.6.1.6-1LA  
                      CTS 3.6.1.6  
                      ITS LCO 3.6.1 and Associated Bases

The CTS markup of CTS 3/4.6.1.6 shows that the entire specification except for the shutdown requirement of the ACTION statement as being relocated to a licensee controlled document (DOC 3/4.6.1.6-1LA). This relocation designation for CTS 3.6.1.6 is not correct. CTS 3.6.1.6 is incorporated into ITS LCO 3.6.1. Since there is no change in requirements only a change in presentation and format, the changes with regards to CTS 3.6.1.6 are considered as Administrative changes, not as Less Restrictive - Generic (LA) changes. See Comment Numbers 3.6.1-3, 3.6.1-4, and 3.6.1-6. **Comment:** Revise the CTS markup of CTS 3.6.1.6 to show that it has been reformatted to ITS LCO 3.6.1 and provide the appropriate discussion and justifications for this Administrative change. See Comment Numbers 3.6.1-3, 3.6.1-4 and 3.6.1-6.

**SNC Response:**

See Response to Comment Number 3.6.1-4.

**Question:**

3.6.1-6            DOC 3/4.6.1.6-1LA  
                      CTS 4.6.1.6  
                      ITS 5.5.6

The CTS markup of CTS 3/4.6.1.6 shows that the entire specification except for the shutdown requirement of the ACTION as being relocated to a licensee controlled document (DOC 3/4.6.1.6-1LA). This relocation designation for CTS 4.6.1.6.1, 4.6.1.6.2, 4.6.1.6.3, and Figure 4.6-1 is not correct. CTS 4.6.1.6 is incorporated into ITS 5.5.6. Thus, the CTS markup should reflect that these requirements have been moved to ITS 5.5.6 similar to what was done for CTS 3/4.6.4.1. This is an Administrative change (movement within the TS) rather than a Less Restrictive - Generic (LA) change. Any changes made to CTS 4.6.1.6 to bring it into conformance with ITS 5.5.6 should be addressed in the markup to ITS



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5.5.6. See Comment Numbers 3.6.1-3, 3.6.1-4, and 3.6.1-5. **Comment:** Revise the CTS markup of CTS 4.6.1.6 to show that it has been moved to ITS 5.5.6 and provide the appropriate discussion and justification for this Administrative change. See Comment Numbers 3.6.1-3, 3.6.1-4, and 3.6.1-5.

### **SNC Response:**

See Response to Comment Number 3.6.1-4.

### **Question:**

3.6.1-7        JFD 1  
                  JFD TSC 1  
                  CTS 4.6.1.1.c  
                  CTS 3/4.6.1.2  
                  STS SR 3.6.1.1  
                  ITS SR 3.6.1.1 and Associated Bases

CTS 4.6.1.1.c and 3/4.6.1.2 require leak rate testing in accordance with the Containment 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 4.6.1.1.c and 3/4.6.1.2 as modified in the CTS markup. 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. 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 3.6.2-3, and 3.6.3-8. **Comment:** Licensee should revise its submittal to conform to the 11/2/95 letter and TSTF-52 modified by the staff. See Comment Numbers 3.6.2-3 and 3.6.3-8.

### **SNC Response:**

A comparison of the submitted package with TSTF-52, Rev. 1 was performed. The main differences noted related to discussing a "design basis LOCA" vs. a "DBA." The changes necessary to incorporate TSTF-52, Rev. 1 into Chapter 3.6 were made to the Bases except on page B 3.6-6, in the BACKGROUND Section of ITS 3.6.3. The first paragraph, as marked, is correct but incomplete. Additional DBAs release radioactive material into the containment. This is discussed in the Bases of TS 3.6.3 on page B 3.6-22 in the APPLICABLE SAFETY ANALYSES Section. Therefore, the discussions of DBAs in the first and third paragraphs of the BACKGROUND Section were left as originally submitted.

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### **Question:**

3.6.1-8        CTS 3/4.6.1.6  
                  ITS 3.6.1

In converting CTS 3/4.6.1.6 to ITS 3.6.1 numerous reformatting, renumbering, and editorial rewording changes were made. In addition certain wording preferences and/or English language conventions were adopted, which resulted in the ITS being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.

### **SNC Response:**

Enclosure 2, page 2 contains a description of the contents of the enclosure as follows: "This enclosure contains a brief DOC for each marked-up change to the FNP Current Technical Specifications (CTS) required to produce the FNP specific Improved Technical Specification (ITS). The DOC numbers are referenced directly from Enclosure 1 (CTS markup), and the associated Significant Hazard Evaluations (SHEs) are contained in Enclosure 3. Some obvious editorial changes made to the CTS in order to conform with the Standard TS (STS) contained in NUREG-1431, Rev. 1 may not be specifically addressed by a DOC but are covered by the generic administrative SHE contained in Enclosure 3." It was recognized during the drafting of the ITS conversion package that not every administrative change was specifically identified and called out. However, as stated above, the generic administrative SHE is applicable to all such changes. All technical changes and significant administrative changes are documented in enclosures 1 and 2, and there is a SHE which is applicable to every change made to create the FNP-specific ITS. As discussed in the conference call with the NRC staff on 9/23/98, a generic administrative DOC (0A) which will apply to the entire enclosure has been added to page 2 of Enclosure 2 as follows:

Numerous reformatting, renumbering, and editorial changes have been made to the TS in this enclosure. In addition, certain wording preferences and/or English language conventions have been adopted, which resulted in the ITS being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes.

### **Question:**

3.6.1-9        JFD SM-95-0721-007  
                  ITS B3.6.1 Bases - APPLICABLE SAFETY ANALYSES

See Comment Number 3.6.4-1. **Comment:** See Comment Number 3.6.4-1.

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### **SNC Response:**

See Response to Comment Number 3.6.4-1.

### **3.6.2 Containment Air Locks**

#### **Question:**

3.6.2-1        DOC 3/4.6.1.3-2L  
                  CTS 3.6.1.3 ACTIONS  
                  ITS 3.6.2 ACTION Notes

The CTS markup of CTS 3/4.6.1.3 adds three Notes to CTS 3.6.1.3 ACTIONS. The third Note added provides guidance to direct the user to ITS 3.6.1 if containment air lock leakage results in the total containment leakage exceeding the limit required by ITS 3.6.1. The justification for adding this Note (DOC 3/4.6.1.3-2L) states that the Note provides clarification, does not introduce a technical change and thus can be considered an Administrative change. While the total change can be classified as Less Restrictive, the above justification is insufficient to justify this portion of the change as Administrative. In order to justify this portion of the change as Administrative, the justification must show that the structure and format of the CTS requires that CTS 3.6.1.1 and 3.6.1.2 ACTIONS be entered when the air lock leakage results in the total containment leakage limits being exceeded. **Comment:** Provide additional discussion and justification for this Administrative change.

#### **SNC Response:**

In the conversion to the ITS, CTS 3/4.6.1.2 is incorporated into ITS LCO 3.6.1 as Conditions A and B and SR 3.6.1.1. The third note for the ACTIONS of ITS 3.6.2 directs the user to ITS 3.6.1 if containment air lock leakage results in the total containment leakage exceeding the limit required by ITS 3.6.1. CTS 3.6.1.3, action c contains the same actions as CTS 3.6.1.2 when the leakage rates exceed the overall Containment Leakage Rate Testing Program acceptance criteria. Thus, the CTS effectively require the same actions to be entered as the ITS. The only difference is the format of the ITS as compared to the CTS. Therefore, this is an administrative change. DOC 3/4.6.1.3 - 2L has been revised to reflect a justification similar to that above.



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**Question:**

3.6.2-2        DOC 3/4.6.1.3-1LA  
                  CTS 3.6.1.3  
                  ITS B3.6.2 Bases - LCO

The descriptive text contained in CTS 3.6.1.3 regarding the status of the air lock doors and the exception to allow entry and exit through the air lock is moved to ITS B3.6.2 Bases - LCO. DOC 3/4.6.1.3-1LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee-controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

**SNC Response:**

For a system to be considered operable, the definition of operability for the system must be satisfied and the associated Surveillance requirements must be met. In the STS, information related to the design and configuration of a system which relate to meeting the operability requirements of the LCO is moved to the Bases. As the above descriptive text defines the allowable configurations under which the air lock is operable, and the conditions and surveillances ensure that those configurations are maintained or appropriate actions are taken, it is appropriate to move this redundant information to the Bases. DOC 3/4.6.1.3 -1 LA has been revised to reflect a justification similar to that above.

**Question:**

3.6.2-3        JFD 1  
                  JFD TSC 1  
                  CTS 4.6.1.3.a  
                  STS SR 3.6.2.1  
                  ITS SR 3.6.2.1 and Associated Bases

See Comment Number 3.6.1-7. **Comment:** See Comment Number 3.6.1-7.

**SNC Response:**

See Response to Comment Number 3.6.1-7.

**Question:**

3.6.2-4        CTS 3/4.6.1.3  
                  ITS 3.6.2

In converting CTS 3/4.6.1.3 to ITS 3.6.2 numerous reformatting, renumbering, and editorial rewording changes were made. In addition, certain wording

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preferences and/or English language conventions were adopted, which resulted in the ITS Being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.

### **SNC Response:**

See Response to Comment Number 3.6.1-8.

### 3.6.3 Containment Isolation Valves

#### **Question:**

- 3.6.3-1      DOC 3/4.6.1.1-1A  
                 CTS 3.6.1.1 ACTIONS  
                 CTS 4.6.1.1.a  
                 ITS 3.6.3 ACTIONS  
                 ITS SR 3.6.3.2, SR 3.6.3.3 and Associated Bases

CTS 4.6.1.1.a verifies that all penetrations not capable of being closed by OPERABLE automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. The corresponding ITS SRs for this CTS surveillance are ITS SR 3.6.3.2 for valves outside containment and ITS SR 3.6.3.3 for valves inside containment. If CTS 4.6.1.1.a cannot be met, the ACTIONS of CTS 3.6.1.1 are entered which require restoration of valve OPERABILITY within 1 hour or shutdown within the following 36 hours. If ITS SR 3.6.3.2 or ITS SR 3.6.3.3 cannot be met, the ACTIONS of ITS 3.6.3 are entered which allows for one valve to be inoperable between 4 hours and 72 hours depending on the type of penetration to restore valve OPERABILITY before shutdown commences. This Less Restrictive change to the CTS is not justified. **Comment:** Revise the CTS markup to show this Less Restrictive change and provide the appropriate discussions and justifications.

### **SNC Response:**

The ACTIONS of CTS 3.6.1.1 require restoration of CONTAINMENT INTEGRITY within 1 hour or shutdown within the following 36 hours. This requirement remains in the ITS as ACTIONS A and C of ITS LCO 3.6.1 (for Containment Operability – the disposition of the CTS defined term CONTAINMENT INTEGRITY is discussed in Enclosure 2 of TS definitions Section 1.0). DOC 3/4.6.1.1-2A discusses the movement of CTS 4.6.1.1.a requirements (including the associated note) to ITS SR 3.6.3.2 and SK 3.6.3.3.

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Restoration of individual valve OPERABILITY is covered under CTS 3/4.6.3. CTS 3/4.6.3 allows 4 hours to restore the inoperable valve(s) to OPERABLE status or isolate the penetration, provided that the affected penetration is open and one isolation valve in the penetration remains OPERABLE. This is equivalent to Condition A of ITS 3.6.3. The addition of ITS 3.6.3 ACTIONS B and C is addressed in DOC 3/4.6.3-10L including a discussion of the less restrictive change associated with the 72 hour Completion Time.

CTS 4.6.1.1.a requires that CONTAINMENT INTEGRITY be demonstrated by ensuring that penetrations which are not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed. The penetration may be isolated by a closed manual valve, a blind flange, or a deactivated automatic valve secured in the closed position. If the penetration is found open and not isolated within 1 hour, establishing containment integrity, the unit must be shutdown within the following 36 hours. In the ITS, for the case where two containment valves on the same penetration flowpath are inoperable and open (where the integrity of the containment boundary would be in question), a Completion Time of 1 hour is provided for isolation by the use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange (ITS 3.6.3 Condition B) similar to ITS LCO 3.6.1 ACTION A and CTS 3/4.6.1.1. This would occur when both ITS SRs 3.6.3.2 and 3.6.3.3 were not met for the valves of a single penetration or when CTS 4.6.1.1.a could not be met for a single penetration. Therefore, the submittal is correct as marked and documented.

### Question:

3.6.3-2            DOC 3/4.6.1.1-5A  
                      CTS 4.6.1.1.a and Associated \*Footnote  
                      ITS SR 3.6.3.3 and Associated Bases

DOC 3/4.6.1.1-5A states that the \*Footnote to CTS 4.6.1.1.a has been revised consistent with its corresponding ITS SR, which is ITS SR 3.6.3.3. This change is characterized as an Administrative change. This is incorrect. The \*Footnote applies to valves, blind flanges, and deactivated automatic valves that are inside containment and are locked, sealed or otherwise secured in the closed position. The frequency to verify these isolation devices are in the closed position is during COLD SHUTDOWN prior to MODE 4 entry but not more often than every 92 days. For valves, blind flanges, and deactivated automatic valves that are inside containment, required to be closed during accident conditions and are not locked, sealed, or otherwise secured in the closed position, the frequency for verifying these isolation devices are in the closed position is once per 31 days as specified in CTS 4.6.1.1.a. ITS SR 3.6.3.3 applies to those containment isolation valves and blind flanges located inside containment and not locked sealed or otherwise secured in the closed position. The frequency for ITS SR 3.6.3.3 is "Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days." In converting from the CTS to the ITS, two changes occur: the frequency for valves, and blind flanges that are not locked, sealed or otherwise secured in the closed position goes from 31 days to "Prior to entering MODE 4-92 days," and for



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valves and blind flanges that are locked, sealed, or otherwise secured in the closed position, the surveillance and frequency are deleted per TSTF-45. These changes are considered Less Restrictive changes rather than Administrative changes.

**Comment:** Revise the CTS markup of CTS 4.6.1.1.a and its associate

\*Footnote to reflect ITS SR 3.6.3.3 and provide a discussion and justification for these Less Restrictive changes.

### **SNC Response:**

The \*Footnote applies to valves, blind flanges, and deactivated automatic valves that are inside containment and are locked, sealed or otherwise secured in the closed position. The frequency to verify these isolation devices are in the closed position is during each COLD SHUTDOWN but not more often than once per 92 days. CTS 4.6.1.1.a requires that at least once per 31 days all penetrations (except those which are listed in the \*Footnote) not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Table 3.6-1 of Specification 3.6.3.1. CTS 4.6.1.1.a applies to penetrations, not individual valves or blind flanges. A penetration may be isolated by a valve, blind flange, or deactivated automatic valve on either side of the penetration. Once isolated, containment integrity is established provided the leakage meets the requirements of CTS 3/4.6.1.2. If a penetration which is not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions is isolated by a valve, blind flange, or deactivated automatic valve located outside containment, then the associated valves or flanges inside containment do not need to be verified closed. Therefore, the frequency for penetrations with valves or blind flanges which are not locked, sealed or otherwise secured in the closed position on either side of the penetration does not change in the conversion to ITS.

DOC 3/4.6.1.1-2a-L addresses the less restrictive change of adding the words "and not locked, sealed, or otherwise secured." The frequency for verification of the valve position, although not stated in the surveillance, was not deleted by this phrase but rather revised to coincide with the positioning and securing of the valve or flange (as stated in the Bases). This phrase is a standard phrase used in the STS which recognizes that the valves were verified to be in the correct position upon locking, sealing, or securing them and that administrative controls exist to provide assurance that any changes to the valve positions are tracked. The administrative controls applied to valves that are locked, sealed, or otherwise secured provide an equivalent level of assurance that the valve is in the correct position as compared to monthly verification of valve position.

## SNC Response to NRC RAI Related to Chapter 3.6

### **Question:**

3.6.3-3        DOC 3/4.6.3-3A  
                  CTS 3.6.3 ACTIONS  
                  ITS 3.6.3 ACTION Notes 3 and 4 and Associated Bases

The CTS markup of CTS 3/4.6.3 adds four Notes to CTS 3.6.3 ACTIONS. Notes 3 and 4 provide guidance in determining when other applicable TS may be entered due to an inoperable containment isolation valve and/or excessive leakage. The justification for adding these two Notes (DOC 3/4.6.3-3A) states that the Notes are intended to provide guidance for use of the STS only, does not introduce a technical change to the CTS and thus can be considered an Administrative change. This justification is insufficient to justify this change as Administrative. In order to justify this change as Administrative, the justification must show that the structure and format of the CTS requires that CTS 3.6.1.1 and other applicable CTS ACTIONS be entered when a containment isolation valve is inoperable or is inoperable due to excessive leakage. See Comment Numbers 3.6.3-4 and 3.6.3-6. **Comment:** Provide additional discussion and justification for this Administrative change. See Comment Numbers 3.6.3-4 and 3.6.3-6.

### **SNC Response:**

In the CTS, LCO 3/4.6.1.2 provides the requirements and associated actions related to containment leakage. In the conversion to the ITS, CTS 3/4.6.1.1 and 3/4.6.1.2 are combined into ITS 3.6.1. CTS 3.0.1 states the following: "Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met." Therefore, if a system is made inoperable by a containment isolation valve or the leakage through an isolation valve results in exceeding the overall containment leakage rate acceptance criteria, then by the requirements of CTS 3.0.1, the appropriate system LCO, and/or LCO 3.6.1.2 for excessive valve leakage (equivalent to that requirement for entry into LCO 3.6.1 in the ITS), would be entered. Thus, the CTS effectively require the same actions to be entered as the ITS. The only difference is the format of the ITS as compared to the CTS. Therefore, this is an administrative change. DOC 3/4.6.3-3A has been revised to reflect a justification similar to that above.

## SNC Response to NRC RAI Related to Chapter 3.6

### Question:

3.6.3-4        DOC 3/4.6.3-3A  
                  DOC 3/4.6.3-20A  
                  DOC 3/4.6.3-2L  
                  CTS 3.6.1.7 ACTIONS  
                  CTS 3.6.3 ACTIONS  
                  ITS 3.6.3 ACTION Notes and Associated Bases

The CTS markup of CTS 3/4.6.3 adds four Notes to CTS 3.6.3 ACTIONS. The markup justifies the addition of these notes with DOCs 3/4.6.3-3A, 3/4.6.3-20A, and 3/4.6.3-2L. The CTS markup of CTS 3/4.6.1.7 does not show the addition of the four Notes to the ACTIONS of CTS 3.6.1.7. Based on the structure and format of the CTS markup and associated DOCs these Notes need to be added to the markup of CTS 3/4.6.1.7 because they also apply to this CTS. See Comment Numbers 3.6.3-3 and 3.6.3-6. **Comment:** Revise the CTS markup of CTS 3/4.6.1.7 to add the four ITS ACTION Notes and provide the appropriate discussion and justification for these Administrative and Less Restrictive changes. See Comment Numbers 3.6.3-3 and 3.6.3-6.

### SNC Response:

In general, in the conversion to ITS the existing CTS is marked up to show all of the significant changes necessary to create the new ITS. There are occasions, such as the above-described case, where two or more CTS are combined into a single ITS LCO. In such cases, where the CTS are related to the same system or parameter (e.g., SDM, Containment Penetrations), the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together. The markups for each CTS which is incorporated into this new ITS address changes to the existing specification. Addition of every detail of the ITS TS is not necessarily documented on each CTS markup since they do not exist in the CTS. The DOCs associated with the markup of CTS 3/4.6.3 concerning the addition of the 4 notes provide the appropriate discussion and justification for these Administrative and Less Restrictive changes. Since the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together, the individual CTS markups don't indicate every associated change. However, the markup for CTS 3/4.6.1.7 has been edited and DOCs and an associated SHE similar to those for CTS 3/4.6.3 have been added to the package for the addition of these notes to CTS 3/4.6.1.7.



## SNC Response to NRC RAI Related to Chapter 3.6

### Question:

- 3.6.3-5        DOC 3/4.6.3-15A  
                  CTS 4.6.3.3  
                  ITS SR 3.6.3.4 and Associated Bases

CTS 4.6.3.3 requires the verification that the isolation time of each power operated or automatic containment isolation valve is within specified limits. The corresponding ITS SR is ITS SR 3.6.3.4 which verified the isolation time of each automatic power operated containment isolation valve is within limits. DOC 3/4.6.3-15A characterizes the revision of the CTS to ITS as an Administrative change. While the frequency change can be characterized as an Administrative change, the change from "Power operated or automatic" to "automatic power operated" is considered a Less Restrictive change since the number of valves tested decreases. The CTS requires all power operated valves to be tested whether they are automatically actuated or not while the ITS only requires the automatic power operated valves to be tested. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

### SNC Response:

CTS 4.6.3.3 requires that the isolation time of each power operated or automatic valve of Table 3.6-1 be determined to be within its limit when tested pursuant to Specification 4.0.5. In the conversion to ITS, Table 3.6-1 will be moved to the Technical Requirements Manual (TRM). Listed in this table are valves which receive a Phase A signal, a Phase B signal, an SI signal, and valves which are manually initiated. As some of the valves which have an identified isolation time do not receive an automatic signal, the deletion of the term power operated is less restrictive. No change to the requirements of the IST program was intended by this change. Therefore, ITS SR 3.6.3.4 has been revised to read: "Verify the isolation time of each power operated or automatic containment isolation valve in the IST Program is within limits."

### Question:

- 3.6.3-6        DOC 3/4.6.3-20A  
                  CTS 3.6.3 ACTIONS  
                  ITS 3.6.3 ACTION Notes and Associated Bases

The CTS markup of CTS 3/4.6.3 adds four Notes to CTS 3.6.3 ACTIONS. The markup justifies the addition of these Notes with DOCs 3/4.6.3-3A, 3/4.6.3-20A, and 3/4.6.3-2L. DOC 3/4.6.3-2L justifies the addition of ITS ACTION Note 1 while DOC 3/4.6.3-3A justifies the addition of ITS ACTION Notes 2, 3, and 4. It cannot be determined to which Note or Notes DOC 3/4.6.3-20A applies since no discussion or justification is associated with this DOC in Enclosure 2 of the submittal. See Comment Numbers 3.6.3-3 and 3.6.3-4. **Comment:** Correct this discrepancy. See Comment Numbers 3.6.3-3 and 3.6.3-4.

## SNC Response to NRC RAI Related to Chapter 3.6

### **SNC Response:**

The markup for DOC 3/4.6.3-20A was inadvertently left on the CTS 3/4.6.3 page after the contents of the DOC were deleted from Enclosure 2. This has been corrected by the deletion of the reference to DOC 3/4.6.3-20A on the CTS 3/4.6.3 page.

### **Question:**

3.6.3-7        DOC 3/4.6.1.7-5M  
                  CTS 3.6.1.7 ACTION a  
                  ITS 3.6.3 ACTION A and Associated Bases

CTS 3.6.1.7 ACTION a specifies the remedial actions to be taken for a mispositioned 48 inch purge isolation valve. CTS 3.6.1.7.a is revised to be consistent with ITS 3.6.3 ACTION A, and the associated changes are characterized as a More Restrictive change. While this change can be characterized as a More Restrictive change for the 48 inch purge valves, the addition of ITS 3.6.3 ACTION A to CTS 3/4.6.1.7 for the 8 inch mini-purge valves is considered as a Less Restrictive change. If a mini-purge valve is inoperable or open for other than safety reasons, CTS 3/4.6.1.7 does not specify an ACTION, therefore CTS 3.0.3 must be entered. CTS 3.0.3 is a more restrictive action than ITS 3.6.3 ACTION A. Thus, the change would be considered as Less Restrictive. See Comment Number 3.6.3-11. **Comment:** Provide additional discussion and justification for this Less Restrictive change. See Comment Number 3.6.3-11.

### **SNC Response:**

The definition of OPERABILITY for the containment purge supply and exhaust valves per the CTS 3.6.1.7 LCO statement is modified by the \*Footnote as follows: "This specification is governing for the containment purge supply and exhaust isolation penetration leakage and the 48-inch isolation valve position." Therefore, if the leak rate through a containment purge supply or exhaust penetration exceeds the limit, whether caused by the 48-inch valves or the 8-inch valves, action b. would be entered. If a mini-purge valve were inoperable due to exceeding the allowed isolation time or not actuating to its isolation position on receipt of an isolation test signal, CTS 3/4.6.3 actions would apply which allow 4 hours to isolate the penetration, similar to ITS 3.6.3 ACTION A.1. LCO statement 3.6.1.7.b of the CTS states that the 8-inch containment mini-purge supply and exhaust valves may be open for safety-related reasons, defined in the bases to include controlling containment pressure and reducing airborne radioactivity. If somehow a mini-purge valve were to be open for other than safety-related reasons, CTS 3/4.6.1.7 does not specify an ACTION. Although such a scenario is unlikely, the correct response to that situation would be to enter CTS 3.0.3. Appropriate operator response to close the valve in that situation would eliminate the need to initiate any plant transients (shutting down) and CTS 3.0.3 would be exited. However, CTS 3.0.3 is a more restrictive action



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than ITS 3.6.3 ACTION A and therefore the appropriate Less Restrictive DOC and SHE have been added to the package.

### **Question:**

3.6.3-8        DOC 3/4.6.1.7-8M  
                  DOC 3/4.6.1.7-6L  
                  DOC 3/4.6.1.7-10LA  
                  JFD PSE  
                  CTS 3.6.1.7 ACTIONS b and c  
                  CTS 4.6.1.7.2 and 4.6.1.7.3  
                  STS ACTION E and Associated Bases  
                  STS SR 3.6.3.7 and Associated Bases  
                  ITS 3.6.3 ACTION D and Associated Bases  
                  ITS SR 3.6.3.7 and Associated Bases

STS 3.6.3 ACTION E and SR 3.6.3.7 were developed from NUREG-0452, the old Westinghouse STS. In NUREG-0452 the surveillances for containment purge valves with resilient seals specified a leakage rate per valve which was an exemption from 10 CFR 50 Appendix J since Appendix J did not specify individual valve leakage only overall or combined valve leakage. If the leakage rate was exceeded, it was an indication of imminent gross seal failure; thus the ACTIONS required that the valve leakage be restored to within limits within 24 hours or the plant was shutdown. These requirements have been in NUREG-0452 since at least 1981. In the improved STS (NUREG-1431) the SR was maintained (surveillance based on individual valves), however, the specific limit was relocated since it was an approved exemption to 10 CFR 50 Appendix J. The ACTIONS required when valve leakage was exceeded were modified to allow continued indefinite operation provided that the penetration flow path was isolated and that the leakage when tested on a periodic basis through the isolation device (valve, blind flange, etc.) did not exceed the specified purge valve leakage limit. In the CTS the ACTIONS (CTS 3.6.1.7 ACTIONS b and c) and the surveillances (CTS 4.6.1.7.2 and 4.6.1.7.3), which were implemented by Amendments 74 for Unit 1 and 66 for Unit 2, dated November 16, 1987, are entirely different from the ACTIONS and surveillances in NUREG-0452. The ACTIONS and surveillances are based on penetration leakage not valve leakage both individual and combined and operations can continue almost indefinitely as long as the combined Type B and C leakage limits and/or the individual penetration leakage is not exceeded. In addition, the leakage does not have to be restored to within limits until the next shutdown and only if the individual penetration leakage is exceeded. Based on the above discussion and the safety evaluation associated with Amendments 74 for Unit 1 and 66 for Unit 2, the staff believes that Farley has two options available with regards to containment purge valve with resilient seal leakage. They are as follows:



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1. Farley can use STS ACTION E and SR 3.6.3.7 and their associated Bases. However, it would be with the understanding and commitment that the leakage rate to be determined would be on an individual valve basis. This would be a major change from current licensing basis and could be considered as a beyond scope of review item depending on the specified individual valve leakage limit and how it was determined. See Comment Number 3.6.3-14.
2. Modify STS ACTION E and/or SR 3.6.3.7 and their associated Bases to reflect current licensing bases as specified in CTS ACTIONS b and c and CTS 4.6.1.7.2 and 4.6.1.7.3. In this option CTS ACTION c would have to be retained in the ITS since it was part of the original bases which allowed Farley to deviate from the requirements specified in NUREG-0452. In addition, the leakage limits specified in CTS 4.6.1.7.2, 4.6.1.7.3.a and 4.6.1.7.3.b all need to be specified in one place either in the Bases or in the Containment Leakage Rate Program. See Comment Number 3.6.3-14.

**Comment:** Revise the CTS/ITS markup accordingly and provide any additional discussion and justification as required. See Comment Number 3.6.3-14

### **SNC Response:**

The package has been changed to reflect the current licensing basis with respect to the limit on purge valve penetration leakage as opposed to individual purge valve leakage. The associated DOC and JD have reflected the changes.

The CTS action statement c provides specific actions for the purge supply and exhaust penetration leakage limit verified by CTS surveillance 4.6.1.7.3.b. CTS surveillance 4.6.1.7.3.b requires verification of purge supply and exhaust penetration leakage to be less than or equal to  $0.05 L_a$ . The conservative CTS leakage limit of  $0.05 L_a$  for penetrations with purge supply and exhaust valves with resilient seals is unrelated to the requirements of 10 CFR 50, Appendix J and is not required to be in the TS by 10 CFR 50 Appendix J or by 10 CFR 36 but was included in the CTS as a commitment to the NRC in response to issues related to the use of resilient seals in the purge valves. As a commitment not directly required by regulations, relocation to the Technical Requirements Manual (TRM) is appropriate.

In the STS, the allowable leakage from these penetrations is controlled by the total Type B and C leakage limit ( $0.6 L_a$ ) and ultimately by the overall containment leakage limit ( $1.0 L_a$ ). Both of these 10 CFR 50 Appendix J limits are specified in the Containment Leakage Rate Testing Program in the administrative controls section of the TS. As such, the removal of the  $0.05 L_a$  limit for penetrations with purge supply and exhaust valves with resilient seals from the CTS is consistent with the requirements contained in the STS and acceptable considering the governing total Type B and C and overall containment leakage limits which remain in the TS. This leakage limit, associated actions, and surveillance requirements are moved from the CTS to the TRM. Reliance on requirements contained

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in the TRM is acceptable since changes to the requirements in the TRM will be controlled in accordance with the 10 CFR 50.59 process.

### **Question:**

3.6 3-9        DOC 3/4.6.3-10L  
                  CTS 3.6.3 ACTIONS  
                  ITS 3.6.3 ACTIONS B, C and Associated Bases

CTS 3.6.3 ACTIONS are revised by the addition of ITS 3.6.3 ACTION B and C to be consistent with NUREG-1431. The justification (DOC 3/4.6.3-10L) states that "The STS provides two additional conditions not previously addressed by the CTS for inoperable Containment Isolation Valves." This statement and the characterization that the change is a Less Restrictive change is incorrect. ITS 3.6.3 Condition B addresses the situation where two containment isolation valves in the same flow path are inoperable, while ITS 3.6.3 Condition C addresses the situation of an inoperable containment isolation valve in a closed system. For these two conditions CTS 3/4.6.3 does not provide any remedial actions, therefore, CTS 3.0.3 is entered. Based on this CTS action the addition of ITS 3.6.3 ACTION B would be an Administrative change since the CTS and ITS required actions are equivalent, while the addition of ITS 3.6.3 ACTION C is a Less Restrictive change since the allowed outage time goes from 1 hour to 72 hours before commencement of a shutdown. See Comment Number 3.6.3-10. **Comment:** Revise DOC 3/4.6.3-10L to reflect that the addition of ITS 3.6.3 ACTION B is an Administrative change and ITS 3.6.3 ACTION C is a Less Restrictive change. See Comment Number 3.6.3-10.

### **SNC Response:**

The MODES of Applicability of CTS 3/4.6.3 are MODES 1, 2, 3 and 4. CTS 3/4.6.3 does not provide any actions for the conditions addressed by STS Conditions B and C. Therefore, if inoperabilities such as those described in the Conditions B or C occurred, CTS 3.0.3 would be entered. CTS 3.0.3 states, in part, "When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour ACTION shall be initiated to place the unit in a MODE in which the specification does not apply..." Since there are no actions for the conditions addressed by STS Conditions B and C, CTS 3.0.3 would require placing the unit in MODE 5. If, under CTS 3/4.6.3, the system was restored such that it met the LCO requirements, 3.0.3 could be exited prior to completing the unit shutdown. However, entry into LCO 3.0.3 would be reportable under 10 CFR 50.73. With the addition of ITS Conditions B and C, isolation of the affected penetration flow path within the associated completion time (and in the case of Condition C, verification that the penetration flow path is isolated every 31 days) would allow indefinite unit operation. Unit shutdown would only be required if the Required Action and associated Completion Time of Condition B were not met. Therefore, the addition of both Conditions B and C are Less Restrictive changes as identified in the package.

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### **Question:**

- 3.6.3-10      DOC 3/4.6.3-10L  
                  CTS 3.6.1.7 ACTIONS  
                  CTS 3.6.3 ACTIONS  
                  ITS 3.6.3 ACTION B and Associated Bases

CTS 3.6.3 ACTIONS are revised by the addition of ITS 3.6.3 ACTION B to be consistent with NUREG-1431. The CTS markup justifies the addition of ITS 3.6.3 ACTION B with DOC 3/4.6.3-10L. The CTS markup of CTS 3/4.6.1.7 does not show the addition of ITS 3.6.3 ACTION B to the ACTIONS of CTS 3.6.1.7. Based on the structure and format of the CTS markup and associated DOCs, this ACTION needs to be added to the markup of CTS 3/4.6.1.7 because it also applies to this CTS. See Comment Numbers 3.6.3-7, 3.6.3-9 and 3.6.3-12. **Comment:** Revise the CTS markup of CTS 3/4.6.1.7 to add ITS 3.6.3 ACTION B and provide the appropriate discussion and justification for this Administrative change. See Comment Numbers 3.6.3-7, 3.6.3-9, 3.6.3-12.

### **SNC Response:**

In general, in the conversion to ITS the existing CTS is marked up to show the significant changes necessary to create the new ITS. There are occasions, such as the above-described case, where two or more CTS are combined into a single ITS LCO. In such cases, where the CTS are related to the same system or parameter (e.g., SDM, Containment Penetrations), the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together. The markups for each CTS which is incorporated into this new ITS address changes to the existing specification. Addition of every detail of the ITS TS is not necessarily documented on each CTS markup since they do not exist in the CTS. The DOC associated with the markup of CTS 3/4.6.3 concerning the addition of ITS 3.6.3 ACTION B provides the appropriate discussion and justification for this Less Restrictive change. Since the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together, the individual CTS markups don't indicate every associated change. However, the markup for CTS 3/4.6.1.7 has been edited and a DOC and an associated SHE similar to that for CTS 3/4.6.3 has been added to the package for the addition of Condition B to CTS 3/4.6.1.7.



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### **Question:**

- 3.6.3-11      DOC 3/4.6.1.7-3LA  
                  DOC 3/4.6.1.7-4LA  
                  CTS 3.6.1.7.b  
                  ITS B3.6.3 Bases - BACKGROUND and LCO.

The requirements and valve numbers contained in CTS 3.6.1.7.b with regards to the 8-inch mini-purge valves have been moved to ITS B3.6.3 Bases - BACKGROUND and LCO. DOCs 3/4.6.1.7-3LA and 3/4.6.1.7-4LA justify the relocations based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee-controlled document. Also see Comment Number 3.6.3-12 for additional concerns with regards to relocating CTS 3.6.1.7.b to the Bases. **Comment:** Provide additional discussion and justification for these Less Restrictive changes. See Comment Number 3.6.3-12.

### **SNC Response:**

CTS 3.6.1.7.b contains detail which provides an allowance for valve configuration. This is a detail of system operation. Such details are also contained in the FSAR where changes are controlled via the 10 CFR 50.59 process. It is appropriate to move this information to the Bases because changes to the bases will be controlled by the bases control program in the administrative section of the TS. The valve numbers listed in CTS 3.6.1.7.a and .b provide plant nomenclature for the valves listed in the LCO statement (Containment purge supply and exhaust valves). This information is detail provided in the FSAR and on plant drawings. It does not define the requirements of operability for the valves but rather provides additional descriptors of the valves that have already been identified by the statement of the LCO. Therefore, it is also appropriate to move this information to the Bases because changes to the bases will be controlled by the bases control program in the administrative section of the TS. DOCs 3/4.6.1.7-3LA and 3/4.6.1.7-4LA have been revised to reflect justifications similar to those above.

### **Question:**

- 3.6.3-12      DOC 3/4.6.1.7-3LA  
                  JFD 2  
                  JFD TSC 2  
                  CTS 3.6.1.7. b  
                  STS SR 3.6.3.2 and Associated Bases  
                  ITS B3.6.3 Bases - BACKGROUND and LCO

CTS 3.6.1.7.b states that "The 8-inch containment mini-purge supply and exhaust valves ... may be open for safety related reasons." This wording implies that the 8-inch mini-purge valves should be maintained in the closed position but can be opened during operation for safety related reasons. ITS B3.6.3 Bases states that

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these valves may be opened on a continuous basis for reducing airborne radioactivity and pressure control. The wording of the CTS would allow this. STS SR 3.6.3.2 is not used in the Farley ITS. Based on the words "may be opened for safety related reasons" in CTS 3.6.1.7.b. and in the staff Safety Evaluation implementing Amendments 74 for Unit 1 and 66 for Unit 2, the staff believes that CTS 3.6.1.7.b cannot be relocated to the Bases because it is part of the current licensing basis and that STS SR 3.6.3.2 is applicable to the Farley ITS, and therefore should be included. See Comment Numbers 3.6.3-7 and 3.6.3-11.

**Comment:** Revise the CTS/ITS markup to include STS SR 3.6.3.2 and associated Bases. Provide the appropriate discussion and justification for this change. See Comment Numbers 3.6.3-7 and 3.6.3-11

### **SNC Response:**

The wording for CTS 3.6.1.7.b states that "The 8-inch containment mini-purge supply and exhaust isolation valves ... may be open for safety-related reasons." It does not say, "may be opened," implying that the 8-inch mini-purge valves should be maintained in the closed position but can be opened during operation. The CTS Bases states that "Safety-related reasons for venting containment during operation (MODES 1, 2, 3 and 4) include controlling containment pressure and reducing airborne radioactivity." ITS B3.6.3 Bases states the following: "The Minipurge System operates to: a. Maintain radioactivity levels in the containment consistent with occupancy requirements with continuous system operation, and b. Equalize internal and external pressures with continuous system operation." The issue of mini-purge operation at Farley Nuclear Plant has been well documented as demonstrated by the following excerpts below:

Alabama Power Company (APCo) to NRC letter dated April 19, 1985, stated the following: "At the Farley Nuclear Plant, it is considered essential to continue operation with unlimited purging to preclude excessive containment pressurization and to minimize the buildup of containment radiation levels. Because of the threat to operation and reliability which would result from the elimination of continuous purging, Alabama Power Company chose to respond to the November 28, 1978 NRC letter by following the second alternative presented in that letter."

NRC to APCo letter dated June 19, 1986, the staff stated the following: "The enclosed Technical Specifications, which we have modified after discussion and agreement with your staff, are found acceptable. We consider this action will close out the multiplant Action B-24 Technical Specifications, will resolve Farley Unit 2 License Condition 2.C.(17), and will permit the continued use of the 8-inch mini-purge system. The system may be used for safety related reasons without a time-limit restriction, but with enhanced surveillance requirements and with new action requirements."

APCo to NRC letter dated May 4, 1987, which submitted Technical Specification amendment requests based on the NRC proposed technical specifications, stated the following: "Alabama Power Company considers NRC acceptance of these Technical Specification changes with normally open minipurge valves and no operational limit goals

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stated or implied to completely resolve and close out Multiplant Action B-24, Farley Unit 2 License Condition 2.C.(17), NUREG-0737 Item II.E.4.2 and all other current open issues of the NRC regarding Farley Nuclear Plant's use of a continuous mini-purge system.

In the NRC to APCo letter dated November 16, 1987, which issued Amendments 74 for Unit 1 and 66 for Unit 2, the NRC stated the following in their Safety Evaluation: "In proposed TS 3.6.1.7.b, the 8-inch mini-purge supply and exhaust containment isolation valves may be open for safety-related reasons including control of containment pressure and reducing airborne radioactivity." The Safety Evaluation goes on to say the following: "By letter dated April 19, 1985, the licensee advised that additional leakage testing and a study to reduce containment building purging is the initiation of a requirement for backfitting. During subsequent discussions between the NRC staff and the licensee staff, agreement was reached to proceed with TSs to meet current regulatory requirements relating to the issue of purging or venting of reactor containments."

The operability of the mini-purge valves is demonstrated in the CTS by satisfactory leak rates, satisfactory isolation times, satisfactory actuation to their isolation position on receipt of an isolation test signal, and a satisfactory cycle test after maintenance by surveillances associated with CTS 3.6.1.7 and 3.6.3. The current Farley licensing basis allows for the mini-purge system to be used for safety related reasons without a time-limit restriction. Verification of mini-purge valves in the closed position is not a current license requirement. Based on the above discussion, STS SR 3.6.3.2 is not applicable to Farley, and therefore should not be included in the ITS.

CTS 3.6.1.7.b contains detail which provides an allowance for valve configuration. This is a detail of system operation. Such details are also contained in the FSAR where changes are controlled via the 10 CFR 50.59 process. It is appropriate to move this information to the Bases because changes to the bases will be controlled by the bases control program in the administrative section of the TS.

#### **Question:**

3.6.3-13      DOC 3/4.6.1.7-9LA  
                  JFD PSE  
                  CTS 3.6.1.7 \*Footnote  
                  ITS B3.6.3 Bases - LCO

The information contained in CTS 3.6.1.7 \*Footnote has been moved to ITS B3.6.3 Bases -LCO. DOC 3/4.6.1.7-9LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. In addition, the staff does not understand the purpose of this footnote, why it needs to be relocated or even retained. **Comment:** Provide additional discussion and justification for this Less Restrictive change.



## SNC Response to NRC RAI Related to Chapter 3.6

### **SNC Response:**

The definition of OPERABILITY for the containment purge supply and exhaust valves per the CTS 3.6.1.7 LCO statement is to be modified by the \*Footnote (i.e., OPERABILITY with regards to this LCO is defined to include the containment purge supply and exhaust isolation penetration leakage and 48-inch isolation valve position. It does not include individual valve leakage requirements or 8-inch minipurge isolation valve position requirements). For a system to be considered operable, the definition of operability for the system must be satisfied and the associated Surveillance requirements must be met. In the STS, information related to the configuration of a system which relate to meeting the operability requirements of the LCO is moved to the Bases. Reliance on the information contained in the STS bases for guidance in defining the OPERABILITY of the associated system is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.1.7-9LA has been revised to reflect a justification similar to that above.

### **Question:**

3.6.3-14      DOC 3.4.6.1.7-10LA  
                  CTS 3.6.1.7 ACTION c  
                  CTS 4.6.1.7.3.b

CTS 4.6.1.7.3.b specifies the leakage rate for each containment purge penetration containing valves with resilient seals. CTS 3.6.1.7 ACTION c specifies the remedial ACTIONS to be taken when CTS 4.6.1.7.3.b is not met. These requirements are being relocated to the Technical Requirements Manual (TRM). Even though the relocation of the surveillance requirement and associated ACTION will depend on the resolution of Comment Number 3.6.3-8, it may be acceptable to relocate the actual limit of 0.05 La depending on how Comment Number 3.6.3-8 is resolved. If the resolution allows the relocation of the limit of 0.05 La, will the limit go to the Bases, TRM, and/or the Containment Leakage Rate Testing Program? It should be noted that the Amendment request that implemented Amendment 122 for Farley Unit 1 and Amendment 114 for Farley Unit 2 (10 CFR 50 Appendix J, Option B) indicated that the limits would be in the program. If the material is being relocated to the TRM, the staff requires that the TRM be part of the FSAR so that the controls and requirements of 10 CFR 50.59 can be applied to changes in the TRM. **Comment:** Indicate to which document(s) the limits may be relocated and verify that the TRM will be included in the Farley FSAR. See Comment Number 3.6.3-8.

### **SNC Response:**

The CTS action statement c provides specific actions for the purge supply and exhaust penetration leakage limit verified by CTS surveillance 4.6.1.7.3.b. CTS surveillance 4.6.1.7.3.b requires verification of purge supply and exhaust penetration leakage to be less than or equal to 0.05 La. The conservative CTS leakage limit of 0.05 La for penetrations

### SNC Response to NRC RAI Related to Chapter 3.6

with purge supply and exhaust valves with resilient seals is unrelated to the requirements of 10CFR50, Appendix J and is not required to be in the TS by 10CFR50 Appendix J or by 10CFR36 but was included in the CTS as a commitment to the NRC in response issues related to the use of resilient seals in the purge valves. As a commitment not directly required by regulations, relocation to the TRM is appropriate. In the STS, the allowable leakage from these penetrations is controlled by the total Type B and C leakage limit ( $0.6 L_a$ ) and ultimately by the overall containment leakage limit ( $1.0 L_a$ ). Both of these 10CFR50 Appendix J limits are specified in the Containment Leakage Rate Testing Program in the administrative controls section of the TS. As such, the removal of the  $0.05 L_a$  limit for penetrations with purge supply and exhaust valves with resilient seals from the CTS is consistent with the requirements contained in the STS and acceptable considering the governing total Type B and C and overall containment leakage limits which remain in the TS. This leakage limit, associated actions, and surveillance requirements are moved from the CTS to the Technical Requirements Manual (TRM). Reliance on requirements contained in the TRM is acceptable since changes to the requirements in the TRM will be controlled in accordance with the 10 CFR 50.59 process.

The FSAR will be revised by the addition of a description of the TRM. The FSAR discussion related to the TRM will include a statement similar to the following: Changes to the TRM will be controlled by the requirements of 10 CFR 50.59.

#### **Question:**

3.6.3-15      DOC 3/4.6.1.7-15LA  
                  CTS 4.6.1.7.3  
                  CTS 4.6.1.7.4

The last paragraph of CTS 4.6.1.7.3 requires that the containment purge valve leakage be compared to previous test results and engineering evaluations be performed to determine corrective action. CTS 4.6.1.7.4 requires the resilient seal material of the containment purge valves to be replaced every five years. This information has been moved to the TRM. DOC 3/4.6.1.7-15LA justified the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. In addition the staff requires that the TRM be part of the FSAR so that the controls and requirements of 10 CFR 50.59 can be applied to changes in the TRM. **Comment:** Provide additional discussion and justification for this Less Restrictive change and verify that the TRM will be included in the Farley FSAR.

#### **SNC Response:**

The above requirement to replace the resilient seal material is a preventative maintenance item designed to preclude excessive degradation of the resilient material in the valve seals. It is not part of the requirements of 10 CFR Part 50 Appendix J, Option B testing. It is not used to determine the current operability of the valves. 10 CFR Part 50 Appendix J,

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Option B requires that the performance-based program developed to implement Option B include a comparison to previous test results to examine the performance history of the overall containment system to limit leakage. The purpose of the comparison to the previously measured leak rate in CTS 4.6.1.7.4 is to detect excessive valve resilient seal material degradation and to evaluate and take corrective as necessary. This requirement is also a preventative maintenance item designed to identify potential excessive degradation of the resilient material in the valve seals and to address it prior to the degradation affecting the operability of the valve. As such, these CTS surveillance requirements do not demonstrate the operability of the valves nor ensure that the requirements of the LCO are met. Therefore, movement of these requirements to the TRM is acceptable. DOC 3/4.6.1.7-15LA has been revised to reflect a justification similar to that above.

The FSAR will be revised by the addition of a description of the TRM. The FSAR discussion related to the TRM will include a statement similar to the following: Changes to the TRM will be controlled by the requirements of 10 CFR 50.59.

#### **Question:**

3.6.3-16      DOC 3/4.6.3-1LA  
                  CTS 3.6.3  
                  CTS 4.6.3.2  
                  CTS 4.6.3.3  
                  CTS Table 3.6-1

The reference to CTS Table 3.6-1 in CTS 3.6.3, 4.6.3.2 and 4.6.3.3 has been deleted from the CTS. CTS Table 3.6-1 has been moved to the TRM. DOC 3/4.6.3-1LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. In addition, the staff requires that the TRM be part of the FSAR so that the controls and requirements of 10 CFR 50.59 can be applied to changes in the TRM. **Comment:** Provide additional discussion and justification for this Less Restrictive change and verify that the TRM will be included in the Farley FSAR.

#### **SNC Response:**

The listing of specific valve names and numbers for valves identified as containment isolation valves is design information which is not directly related to the requirements of the TS. This information does not directly support the operability of any LCO-required systems. Design information is controlled via 10 CFR 50.34 and Appendix B of 10 CFR 50. Changes to this information is controlled via 10 CFR 50.59. Therefore, movement of this information to the TRM is acceptable. DOC 3/4.6.3-1LA has been revised to reflect a justification similar to that above.



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The FSAR will be revised by the addition of a description of the TRM. The FSAR discussion related to the TRM will include a statement similar to the following: Changes to the TRM will be controlled by the requirements of 10 CFR 50.59

#### **Question:**

3.6.3-17      DOC 3/4.6.3-11LA  
                  CTS 4.6.3.1

CTS 4.6.3.1 requires testing be performed on containment isolation valves prior to returning the valve to service after maintenance, repair or replacement of the valve, actuator or control power circuit. This requirement is being relocated to the TRM. The staff requires that the TRM be part of the FSAR so that the controls and requirements of 10 CFR 50.59 can be applied to changes in the TRM. **Comment:** Verify that the TRM will be included in the Farley FSAR.

#### **SNC Response:**

The FSAR will be revised by the addition of a description of the TRM. The FSAR discussion related to the TRM will include a statement similar to the following: Changes to the TRM will be controlled by the requirements of 10 CFR 50.59.

#### **Question:**

3.6.3-18      DOC 3/4.6.3-13LA  
                  CTS 4.6.3.2  
                  ITS B3.6.3 Bases - SR3.6.3.6

The surveillance test details contained in CTS 4.6.3.2 of when to perform the surveillance and the specific actuating signals have been moved to ITS B3.6.3 Bases - SR 3.6.3.6. DOC 3/4.6.3-13LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

#### **SNC Response:**

The control of the plant conditions appropriate to perform a surveillance test is typically an issue for procedures and scheduling. The detail concerning when to perform this surveillance is an expansion of the information already included in the STS bases (i.e., outage) and therefore belong in the bases. The inclusion of specific detail (i.e., which signals provide the appropriate input) intended to explain or clarify the intent of the requirements of surveillances are unnecessary as a TS restriction. Which signals act on which valves is a design detail that is included in the FSAR where changes are controlled via the 10 CFR 50.59 process. It is appropriate to move this information to the Bases

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because changes to the bases will be controlled by the bases control program in the administrative section of the TS. DOC 3/4.6.3-13LA has been revised to reflect a justification similar to that above.

#### **Question:**

3.6.3-19 JFD PSE  
ITS B3.6.3 Bases - ACTIONS

ITS B3.6.3 Bases - ACTIONS has the following paragraph added: "The Actions address penetration flow paths. A containment penetration may be shared by more than one flow path (e.g., Containment Mini and Main Purge Systems). The ACTIONS only require the affected flow path to be isolated. Other flow paths on the same penetration with OPERABLE isolation valves are not required to be isolated." While it may be true that more than one flow path may share a containment penetration, the balance of the paragraph may not necessarily be true. As an example, CTS 3.6.1.7 ACTION b.2.a requires both flow paths to be isolated.

The staff finds this change to be more than just a simple Plant Specific Enhancement (PSE), but would involve a detailed technical evaluation. In addition, the staff considers the change to be generic and beyond the scope of review for this conversion. **Comment:** Delete this generic change.

#### **SNC Response:**

This change has been deleted.

#### **Question:**

3.6.3-20 JFD E  
STS B3.6.3 Bases - E.1, E.2 and E.3  
STS B3.6.3 Bases - SR 3.6.3.1  
STS B3.6.3 Bases - SR 3.6.3.7  
STS B3.6.3 Bases - REFERENCES  
ITS B3.6.3 Bases - D.1, D.2 and D.3  
ITS B3.6.3 Bases - SR 3.6.3.1  
ITS B3.6.3 Bases - SR 3.6.3.5  
ITS B3.6.3 Bases - REFERENCES

STS B3.6.3 Bases - E.1, E.2 and E.3 and SR 3.6.3.7 refer to "NRC initiative, Generic Issue B-20" while ITS B3.6.3 Bases - SR 3.6.3.1 refers to "NRC initiative Generic Issue B-24." The ITS markup for ITS B3.6.3 Bases D.1, D.2, and D.3, SR 3.6.3.1, SR 3.6.3.5 and REFERENCES deletes these items based on JFD E which states that SCS cannot verify B-20 and B-24, therefore it is an STS error. B-20 and B-24 are valid generic issues - B-20 is Multiplant Action (MPA) B020



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"Containment Leakage Due to Seal Deterioration" and B-24 is MPA B024 "Venting and Purging Containment while At Full Power and Effect of LOCA." In fact, MPA-24 is referenced in the Safety Evaluation implementing Amendments 74 for Unit 1 and 66 for Unit 2. **Comment:** Revise the ITS markup for ITS B3.6.3 Bases - D.1, D.2 and D.3, SR 3.6.3.1, SR 3.6.3.5 and REFERENCES to include MPA B-20 and B-24 or provide a discussion and justification to show that they are not applicable to Farley.

#### **SNC Response:**

Copies of MPA B-20 and B-24 cannot be located. In discussions with the NRC staff, the staff stated that MPA B-20 was incorporated into MPA B-24. References to MPA B-20 and B-24 have been identified in correspondence between Alabama Power Company (APCo) and the NRC, including the above referenced safety evaluation. In NRC to APCo letter dated August 5, 1981, the staff discussed Generic Issue B-20 in Enclosure 1, which is an amplification of position B.4 of Branch Technical Position (BTP) CSB 6-4, and recommended the addition of provisions in the Technical Specifications to test active purge vent systems once every 3 months and passive purge systems once every 6 months. In NRC to APCo letter dated June 19, 1986, which discussed the Farley Technical Specifications, the staff stated the following: "We consider this action will close out the Multiplant Action B-24 Technical Specifications..." In NRC to APCo letter dated June 19, 1986, which issued amendments 74 for Unit 1 and 66 for Unit 2, the staff stated in the Safety Evaluation: "The staff found that the purge/vent systems at Farley 1 and 2 met the systems design and performance criteria as set forth in Branch Technical Position CSB 6-4, NUREG-0737, Item II.E.4.2, and the guidance developed as part of Multi-Plant Action B-24." Based on review of the above correspondence, it is believed that Farley is currently in compliance with the frequency of purge system leakage rate testing discussed in MPA B-20 and B-24 and will continue to be in compliance after conversion to the ITS. However, without copies of the referenced documents, the Bases for FNP ITS 3.6.3 will not be revised to incorporate the references to MPA B-20 and B-24 related to the frequency of purge system leakage rate testing.

#### **Question:**

3.6.3-21      CTS 3/4.6.3  
                  ITS 3.6.3

In converting CTS 3/4.6.3 to the ITS 3.6.3 numerous reformatting, renumbering, and editorial rewording changes were made. In addition, certain wording preferences and/or English language conventions were adopted, which resulted in the ITS being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.



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### **SNC Response:**

See Response to Comment Number 3.6.1-8.

### **Question:**

3.6.3-22        STS B3.6.3 Bases - LCO  
                  ITS B3.6.3 Bases - LCO

The first sentence in the third paragraph of STS B3.6.3 Bases - LCO states the following: "The normally closed isolation valves are considered OPERABLE when..." ITS B3.6.3 Bases - LCO modifies this sentence to read "The normally closed 48 inch isolation valves..." The sentence applies to all sized, normally closed isolation valves. Also, the change does not make sense. Therefore, unless all normally closed isolation valves are 48-inches, this change is unacceptable.

**Comment:** Delete this change.

### **SNC Response:**

This error was discovered by SNC during the review of the package submitted on March 12, 1998 while preparing the clean-typed copy of the ITS. The clean-typed copy was submitted to the NRC by SNC letter dated April 24, 1998. The second paragraph of that letter stated the following: "During review of the submitted package for the creation of the clean-typed copy, some changes were made to correct minor editorial errors and inconsistencies within the package. These changes have not affected the previously submitted SHEs. The changes are included in Attachment 1. These pages should be substituted for the corresponding pages in the March 12, 1998 submittal." Attachment 1 to that letter included the above requested correction, which was reflected in the clean-typed copy.

### **Question:**

3.6.3-23        STS B3.6.3 Bases - ACTIONS  
                  ITS B3.6.3 Bases - ACTIONS

STS/ITS B3.6.3 Bases - ACTIONS fourth paragraph states the following: "in the event the air lock leakage results..." This sentence is incorrect. EDIT-17 corrects the sentence to read as follows: "In the event the isolation valve leakage results..." **Comment:** Revise ITS B3.6.3 Bases - ACTIONS to conform with EDIT-17.

### **SNC Response:**

EDIT-17 has been incorporated into the FNP ITS Bases, ACTIONS section, for TS 3.6.3. The fourth paragraph now states the following: "In the event the isolation valve leakage

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results in exceeding the overall containment leakage rate, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.”

### 3.6.4 Containment Pressure

#### **Question:**

3.6.4-1        DOC 3/4.6.1.4-2M  
                  CTS 3.6.1.4  
                  JFD SM-95-0721-007  
                  JFD SM-95-0721-021  
                  ITS LCO 3.6.4 and Associated Bases

CTS 3.6.1.4 specifies that the containment pressure shall be maintained between -1.5 and 3.0 psig. The CTS and ITS markups show that the lower pressure boundary has been revised from -1.5 to -1.0 psig. The justification (DOC 3/4.6.1.4-2M) states that the change was made to account for inadvertent actuation of the Containment Spray System and as part of the power uprate Amendment (approved on 4/29/98). The power uprate Amendment did not address this issue or change CTS 3/4.6.1.4. In addition, the markup of ITS B3.6.4 Bases shows the Associated Bases changes designated as JFD SM-95-0721-007 and JFD SM-95-0721-021. No justification, discussion or indication is provided for these JFD numbers. Thus, the staff considers this change, as well as the associated Bases changes, to be a beyond scope of review item for this conversion.  
**Comment:** Delete this change.

#### **SNC Response:**

DOC 3/4.6.1.4-2M states the following: “In the STS Bases for TS 3.6.4, “Containment Pressure,” one of the design parameters discussed is an inadvertent actuation of the Containment Spray System. The existing analyses for Farley did not consider an inadvertent Containment Spray actuation event. As an addition to analyses already being performed for uprate of the Farley units, analysis for this event was performed.” This analysis was not part of the power uprate Amendment. As containment analyses were already being performed for the power uprate Amendment, it was efficient to add this additional analysis. The notations in the Bases (SM-95-0721-007 and SM-95-0721-021) are not justifications for differences (JFDs) but rather the identifying numbers for the associated calculations. There are no JFDs associated with Bases changes, only for technical changes to the TS or surveillances for portions of each which are not bracketed. As stated on the second page of Enclosure 4, “Bracketed information in the STS is confirmed to be applicable to FNP or replaced with information that is applicable to FNP or deleted as appropriate. In cases where previously NRC approved CTS information is used to replace the generic STS information in brackets, no justification for altering the bracketed STS information is provided. The basis for all such changes to the STS is to maintain the current FNP licensing basis as specified in the CTS.” As this change replaces the bracketed information with information that is different from the current licensing

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basis, a JFD should have been included in Enclosure 5 for this change. A JFD for this change has been added to the package. While this change differs from the current licensing basis, it reduces the window of operation with respect to containment pressure, and is therefore a more conservative position for plant operation.

### 3.6.5 Containment Air Temperature

#### **Question:**

- 3.6.5-1        DOC 3/4.6.1.5-2LA  
                  JFD PSC  
                  CTS 4.6.1.5.1  
                  ITS B3.6.5 Bases - SR 3.6.5.1

CTS 4.6.1.5.1 contains details regarding the performance of CTS 4.6.1.5.2. This information has been moved to ITS B3.6.5 Bases - SR 3.6.5.1. DOC 3/4.6.1.5-2LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee-controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

#### **SNC Response:**

The specific instruments required, the instrument numbers, and locations of the sensors for determining the containment average air temperature are design and procedural detail which are meant to clarify the intent of the requirements in the surveillance. This information does not directly support the operability of any LCO-required systems. The ITS bases provides a more appropriate location for these types of informational statements. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.1.5-2LA has been revised to reflect a justification similar to that above.

#### **Question:**

- 3.6.5-2        CTS 3/4.6.1.5  
                  ITS 3.6.5

In converting CTS 3/4.6.1.5 to ITS 3.6.5 numerous reformatting, renumbering, and editorial rewording changes were made. In addition certain wording preferences and/or English language conventions were adopted, which resulted in the ITS being more readily readable and therefore understandable by the plants operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was



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provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.

### **SNC Response:**

See Response to Comment Number 3.6.1-8.

### **Question:**

3.6.5-3 JFD SM-95-0721-007  
TS B3.6.5 Bases - APPLICABLE SAFETY ANALYSES

See Comment Number 3.6.4-1. **Comment:** See Comment Number 3.6.4.1.

### **SNC Response:**

See Response to Comment Number 3.6.4.1.

## 3.6.6 Containment Spray and Cooling Systems

### **Question:**

3.6.6-1 DOC 3/4.6.2.1-3M  
DOC 3/4.6.2.3-4A  
CTS 3.6.2.1 ACTIONS  
CTS 3.6.2.3 ACTIONS  
ITS 3.6.6 ACTIONS A and C and Associated Bases

The Completion Times for one Containment Spray System and/or one Containment Cooling System inoperable in CTS 3.6.2.1 ACTIONS and CTS 3.6.2.3 ACTIONS have been modified by an additional Completion Time of "and 10 days from discovery of failure to meet the LCO." DOC 3/4.6.2.1-3M states that this change is a More Restrictive change to the ACTIONS of CTS 3.6.2.1, which is acceptable. However, DOC 3/4.6.2.3-4A states the replacement of CTS 3/4.6.2.3 ACTIONS with the ITS 3.6.6 ACTIONS is essentially an Administrative change. While this may be correct for some aspects of the overall change, it is incorrect for the additional Completion Time in ITS 3.6.6 ACTION C of "and 10 days from discovery of failure to meet the LCO." The intent of the Completion Time of "10 days from discovery of failure to meet the LCO" in ITS 3.6.6 ACTIONS A and C is to prevent the unit from operating indefinitely with a Containment Spray System and/or Containment Cooling System inoperable. Based on the structure and application of the remedial measures specified in the CTS ACTIONS, the CTS would allow indefinite operation with an inoperable Containment Spray System and/or Containment Cooling System. Thus this change associated with CTS 3.6.2.3 ACTIONS is a More Restrictive change rather than an Administrative change. No discussion or justification is provided for this

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change. **Comment:** Provide a discussion and justification for this More Restrictive change.

### **SNC Response:**

In general, in the conversion to ITS the existing CTS is marked up to show the significant changes necessary to create the new ITS. There are occasions, such as the above described case, where two or more CTS are combined into a single ITS LCO. In cases where the CTS are related to the same system or parameter (e.g., SDM, Containment Penetrations), the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together. The markups for each CTS which is incorporated into this new ITS address changes to the existing specification. Addition of every detail of the ITS TS is not necessarily documented on each CTS markup since they do not exist in the CTS. In this case, two CTS which cover two separate systems are joined together into one TS in the ITS. The additional Completion Time of "and 10 days from discovery of failure to meet the LCO" is added to both the containment spray actions and the containment cooler actions. As these systems are different, and the frequency applies to each system individually, this addition should be reflected in the markups for the individual CTS. Therefore, CTS 3/4.6.2.3 has been marked up to reflect this addition and an appropriate DOC has been added to Enclosure 2, similar to DOC 3/4.6.2.1 - 3M.

### **Question:**

3.6.6-2            DOC 3/4.6.2.3-4A  
                      CTS 3.6.2.1 ACTIONS  
                      CTS 3.6.2.3 ACTIONS  
                      ITS 3.6.6 ACTION F and Associated Bases

The CTS markup of CTS 3.6.2.1 ACTIONS does not show the addition of ITS 3.6.3 Condition F – "Two Containment Spray Trains inoperable" and the Required ACTION of "Enter LCO 3.0.3" immediately. Based on the structure, organization, and markup of the CTS submittal, the markup of CTS 3/4.6.2.1 and associated DOCs would need to show this change. The CTS markup of CTS 3.6.2.3 ACTIONS shows the addition of ITS 3.6.6 ACTION F with regards to CTS 3.6.2.3. However, the justification (DOC 3/4.6.2.3-4A) associated with this addition states that "The STS provides one new condition that does not have a corresponding CTS ACTION." This statement is incorrect; the corresponding CTS ACTION associated with ITS 3.6.6 ACTION F is CTS 3.0.3. **Comment:** Revise the markup of CTS 3.6.2.1 ACTIONS to show the addition of ITS 3.6.6 ACTION F and provide an appropriate discussion and justification for this Administrative change. Revise the discussion and justification associated with the addition of ITS 3.6.6 ACTION F to CTS 3.6.2.3 ACTIONS (DOC 3/4.6.2.3-4A) to correctly reflect the application of the CTS with regards to loss of function actions.

## SNC Response to NRC RAI Related to Chapter 3.6

### **SNC Response:**

In general, in the conversion to ITS the existing CTS is marked up to show the significant changes necessary to create the new ITS. There are occasions, such as the above-described case, where two or more CTS are combined into a single ITS LCO. In such cases, where the CTS are related to the same system or parameter (e.g., SDM, Containment Penetrations, common action statements), the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together. The markups for each CTS which is incorporated into this new ITS address changes to the existing specification. Addition of every detail of the ITS TS is not necessarily documented on each CTS markup since they do not exist in the CTS. The DOC associated with the markup of CTS 3/4.6.2.3 concerning the addition of ITS 3.6.6 Condition F provides the appropriate discussion and justification for this Administrative change. Since the significant changes necessary to create the new ITS are covered when both of the CTS markups are considered together, the individual CTS markups don't indicate every associated change. However, the markup for CTS 3/4.6.2.1 has been edited and a DOC similar to that for CTS 3/4.6.2.3 has been added to the package for the addition of Condition F to CTS 3/4.6.2.1.

Condition F of ITS 3.6.6 applies to either of the following conditions: 1) Two containment spray trains inoperable OR 2) Any combination of three or more trains inoperable (referring to the containment spray and containment cooling trains listed in the combined STS LCO). In the CTS, there is no action statement that directs the user to enter CTS 3.0.3 for either of these conditions. CTS 3.6.2.1 and 3.6.2.3 are silent for these conditions. CTS 3.0.3 itself states, in part, the following: "When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour ACTION shall be initiated to place the unit in a MODE in which the specification does not apply..." By the rules of usage of the TS, the user would know that CTS 3.0.3 was applicable and it would be entered. Therefore, while the actions taken would be the same, there is no corresponding action. Condition F is not necessary in the CTS due to the fact that CTS 3.0.3 would be automatically entered under those conditions based on the rules of usage. In the ITS, however, it is possible to enter all applicable Conditions in a TS. For example, in STS LCO 3.6.6, Condition A and D could be applicable at the same time and allow 72 hours before requiring action to shutdown the unit. However, if Condition A and D were applicable the unit would have no operable Cooling System train and only one operable Spray system train. The combination of these STS Conditions allows operation to continue for longer than acceptable (up to 72 hours) in this degraded plant condition. Therefore, the STS provides Condition F which is intended to address the situation described above (three inoperable trains) and require more immediate action (enter LCO 3.0.3 Immediately).



## SNC Response to NRC RAI Related to Chapter 3.6

### Question:

- 3.6.6-3        DOC 3/4.6.2.1-5LA  
                  CTS 4.6.2.1.b  
                  ITS B3.6.6 Bases - SR 3.6.6.4

The specific required flow and discharge pressures specified in CTS 4.6.2.1.b have been moved to ITS B3.6.6 Bases - SR 3.6.6.4. DOC 3/4.6.2.1-5LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

### SNC Response:

The flow alignment (recirculation flow) is a procedural detail related to the performance of this surveillance in accordance with the Inservice Testing Program. The alignment allows testing of the Containment Spray pumps without causing flow to be released out of the nozzles into containment. The flow alignment is described in the IST plan along with an acceptable range of differential pressures. The minimum required differential pressure corresponds to a single point on the pump curve. Testing at other points along the pump's required head curve may also be used to warn of abnormal pump performance. Ensuring that the pump performs in accordance with the IST plan will continue to ensure that adequate differential pressure is maintained. Movement of this information to the bases will not affect the acceptance criteria of the IST plan and will continue to provide the appropriate guidance as to the intent of the surveillance. Reliance on the information contained in the STS bases for the performance of surveillance testing is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.2.1 - 5LA has been revised to reflect a justification similar to that above.

### Question:

- 3.6.6-4        DOC 3/4.6.2.1-8LA  
                  CTS 4.6.2.1.c  
                  CTS 4.6.2.1.d  
                  ITS B3.6.6 Bases - SR 3.6.6.5 and SR 3.6.6.6  
                  ITS B3.6.6 Bases - SR 3.6.6.8

The specific actuation signal used to verify that the automatic valve actuates to its correct position and the spray pump starts in CTS 4.6.2.1.c.1 and CTS 4.6.2.1.c.2, respectively, have been moved to ITS B3.6.6 Bases - SR 3.6.6.4 and SR 3.6.6.5. In addition, the descriptive detail regarding how the spray header nozzle is verified unobstructed has been moved to ITS B3.6.6 Bases - SR 3.6.6.8. DOC 3/4.6.2.1-8LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an

## SNC Response to NRC RAI Related to Chapter 3.6

acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

### **SNC Response:**

The inclusion of specific detail (i.e., which signals provide the appropriate input) intended to explain or clarify the intent of the requirements of surveillances are unnecessary as a TS restriction. Identification of valve control signals is a design detail included in the FSAR where changes are controlled via the 10 CFR 50.59 process. The descriptive detail regarding how the spray header nozzles are verified unobstructed is a procedural detail of the methodology employed to ensure that the nozzles are not blocked. The ITS bases provides a more appropriate location for these types of detail. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.2.1 - 8LA has been revised to reflect a justification similar to that above.

### **Question:**

- 3.6.6-5        DOC 3/4.6.2.3-6LA  
                  CTS 4.6.2.3.a.1  
                  CTS 4.6.2.3.b  
                  ITS B3.6.6 Bases - SR 3.6.6.2  
                  ITS B3.6.6 Bases - SR 3.6.6.7

The details regarding where to start the containment cooling fans if not running specified in CTS 4.6.2.3.a.1 and the specific actuation signal used to verify automatic fan start specified in CTS 4.6.2.3.b have been moved to ITS B3.6.6 Bases - SR 3.6.6.2 and ITS B3.6.6 Bases - SR 3.6.6.7, respectively. DOC 3/4.6.2.3-6LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

### **SNC Response:**

The inclusion of specific detail (i.e., which signals provide the appropriate input) intended to explain or clarify the intent of the requirements of surveillances are unnecessary as a TS restriction. Identification of valve control signals is a design detail included in the FSAR where changes are controlled via the 10 CFR 50.59 process. The details regarding where to start the containment cooling fans if not running is a procedural detail providing guidance for the performance of the surveillance. The ITS bases provides a more appropriate location for these types of detail. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since

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changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.2.3 - 6LA has been revised to reflect a justification similar to that above.

### **Question:**

3.6.6-6            CTS 4.6.2.3.a  
                      ITS SR 3.6.6.2, SR 3.6.6.3 and Associated Bases

CTS 4.6.2.3.a requires the starting and operating of each fan group for at least 15 minutes and verifying a cooling water flow rate of greater than or equal to 1600 gpm to each cooler group on a frequency of "At least once per 31 days on a STAGGERED TEST BASIS." The corresponding ITS SRs (SR 3.6.6.2 and SR 3.6.6.3, respectively) require the surveillance be performed on a frequency of 31 days. The CTS markup shows that "on a STAGGERED TEST BASES" is retained. **Comment:** Revise the CTS/ITS markups to show that "on a STAGGERED TEST BASIS" is either retained or deleted and provide the appropriate discussions and justifications.

### **SNC Response:**

The CTS 3/4.6.2.3 surveillance 4.6.2.3.a is revised by the deletion of the Staggered Test Basis requirement for the containment cooling fans system consistent with the STS. The resulting test interval for the containment cooling fans system is a straight 31 days consistent with the STS requirements. Therefore, CTS 3/4.6.2.3 has been marked up to reflect this deletion and an appropriate DOC and SHE have been added to Enclosures 2 and 3, respectively.

### **Question:**

3.6.6-7            JFD SM-95-0721-007  
                      JFD SM-95-0721-021  
                      ITS B3.6.6 Bases - APPLICABLE SAFETY ANALYSES

See Comment Number 3.6.4-1    **Comment:** See Comment Number 3.6.4-1.

### **SNC Response:**

See Response to Comment Number 3.6.4-1.



## SNC Response to NRC RAI Related to Chapter 3.6

### 3.6.7 Hydrogen Recombiners

#### **Question:**

3.6.7-1        DOC 3/4.6.4.2-4LA  
                  CTS 4.6.4.2.b.1

CTS 4.6.4.2.b.1 requires the performance of a CHANNEL CALIBRATION on all hydrogen recombiner instrumentation and control circuits. This requirement is being relocated to the Technical Requirements Manual (TRM). The staff requires that the TRM be part of the FSAR so that the controls and requirements of 10 CFR 50.59 can be applied to changes in the TRM. **Comment:** Verify that the TRM will be included in the Farley FSAR.

#### **SNC Response:**

See Response to Comment Number 3.6.3-17.

#### **Question:**

3.6.7-2        DOC 3/4.6.4.2-5LA  
                  CTS 4.6.4.2.a  
                  CTS 4.6.4.2.b.2  
                  CTS 4.6.4.2.b.3  
                  ITS B3.6.7 Bases - SR 3.6.7.1  
                  ITS B3.6.7 Bases - SR 3.6.7.2  
                  ITS B3.6.7 Bases - SR 3.6.7.3

The details and descriptive information on the performance of the hydrogen recombiner functional test specified in CTS 4.6.4.2.a, the visual examination of the recombiners for abnormal conditions specified in CTS 4.6.4.2.b.2, and the resistance to ground tests for the heaters specified in CTS 4.6.4.2.b.3 have been moved to ITS B3.6.7 Bases - SR 3.6.7.1, ITS B3.6.7 Bases - SR 3.6.7.2 and ITS B3.6.7 Bases - SR 3.6.7.3, respectively. DOC 3/4.6.4.2-5LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

#### **SNC Response:**

The details and descriptive information on the performance of the hydrogen recombiner functional test, the visual examination of the recombiners for abnormal conditions, and the resistance to ground tests for the heaters are intended to explain or clarify the intent of the requirements and provide guidance for the performance of the surveillance. As such, they are unnecessary as a TS restriction. The ITS bases provides a more appropriate location

## SNC Response to NRC RAI Related to Chapter 3.6

for these types of informational statements. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.4.2 -5LA has been revised to reflect a justification similar to that above.

### **Question:**

3.6.7-3        CTS 3/4.6.4.2  
                  ITS 3.6.7

In converting CTS 3/4.6.4.2 to the ITS 3.6.7 numerous reformatting, renumbering, and editorial rewording changes were made. In addition, certain wording preferences and/or English language conventions were adopted, which resulted in the ITS being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.

### **SNC Response:**

See Response to Comment Number 3.6.1-8.

### **Question:**

3.6.7-4        DOC CTS 3/4.6.4.2-3L  
                  DOC CTS 3/4.6.4.4-3L  
                  CTS 3.6.4.2 ACTIONS  
                  STS 3.6.8 ACTION B and Associated Bases  
                  ITS 3.6.7 ACTION B and Associated Bases

CTS 3.6.4.2 ACTION is modified by the addition of ITS 3.6.7 ACTION B which provides the remedial actions to be taken when two hydrogen recombiners are inoperable. STS B3.6.8 Bases - B.1 and B.2 contains a Reviewer's Note which states that "This condition is only allowed for units with an alternate hydrogen control system acceptable to the staff." Three of the acceptable alternate hydrogen control systems specified in the write up of STS B3.6.8 Bases - B.1 and B.2 are a Hydrogen Purge System, a Hydrogen Mixing System and a Containment Air Dilution System. The ITS markup for ITS B3.6.7 Bases B.1 and B.2 states that the acceptable Hydrogen Control System at Farley is the Post-Accident Hydrogen Purge System. Based on the similar wording in DOCs 3/4.6.4.2-3L and 3/4.6.4.4-3L, the ITS markup of ITS B3.6.8, "Hydrogen Mixing System," and the ITS markup of ITS B3.6.9, "Reactor Cavity Hydrogen Dilution System," it would seem that the Hydrogen Mixing System and Reactor Cavity Hydrogen Dilution System are also acceptable alternate Hydrogen Control Systems which should be

## SNC Response to NRC RAI Related to Chapter 3.6

included in the Bases write-up to ITS B3.6.7 Bases B.1 and B.2. It is assumed that the Reactor Cavity Hydrogen Dilution System is the plant specific name for the STS Containment Air Dilution System. The addition of these acceptable alternate Hydrogen Control Systems would provide additional flexibility upon entering this ITS ACTION. See Comment Numbers 3.6.8-2 and 3.6.9-2.

**Comment:** Provide a discussion and justification to show why these two alternate Hydrogen Control Systems should not be included in the Bases write-up of ITS B3.6.7. See Comment Numbers 3.6.8-2 and 3.6.9-2.

### **SNC Response:**

Required Action B.1 of ITS 3.6.7 and 3.6.8 directs the user to do the following: "Verify by administrative means that the hydrogen control function is maintained." In the conversion, "control of hydrogen" was deemed to mean reduction in the concentration of hydrogen in the containment. Therefore, the Hydrogen Mixing and Reactor Cavity Hydrogen Dilution systems are not replacements for the Hydrogen Recombiners or Post Accident Hydrogen Purge System. The Reactor Cavity Hydrogen Dilution System is a mixing system which draws from the reactor cavity area. The Post-Accident Hydrogen Purge System injects air into the containment and vents air out of the containment through a filter, thereby decreasing the hydrogen concentration in containment. The Hydrogen Mixing and Reactor Cavity Hydrogen Dilution systems do not have a means of controlling hydrogen and cannot reduce the containment average concentration. They provide a mixing/homogenization function to prevent the buildup of hydrogen in "pockets" in the containment. Without calculations or other documentation to demonstrate that the above systems could provide a hydrogen control function, the above systems were not added to the bases. Should future calculations or other documentation to demonstrate that the above systems could provide a hydrogen control function they could then be added to the bases. Therefore, the bases for ITS 3.6.7 is currently correct as marked.

### 3.6.8 Hydrogen Mixing System (HMS)

#### **Question:**

3.6.8-1        DOC 3/4.6.4.4-5LA  
                  CTS 4.6.4.4.a  
                  ITS B3.6.8 Bases - SR 3.6.8.1

The descriptive information regarding how and where the HMS is started specified in CTS 4.6.4.4.a is moved to ITS B3.6.8 Bases - SR 3.6.8.1. DOC 3/4.6.4.4-5LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document.

**Comment:** Provide additional discussion and justification for this Less Restrictive change.



## SNC Response to NRC RAI Related to Chapter 3.6

### **SNC Response:**

The descriptive information regarding how and where the HMS is started specified in CTS 4.6.4.4.a is intended to provide guidance for the performance of the surveillance. As such, it is unnecessary as a TS restriction. The ITS bases provides a more appropriate location for these types of informational statements. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls section of the TS. DOC 3/4.6.4.4 - 5LA has been revised to reflect a justification similar to that above.

### **Question:**

- 3.6.8-2        DOC CTS 3/4.6.4.2-3L
- DOC CTS 3/4.6.4.4-3L
- CTS 3.6.4.4 ACTIONS
- STS 3.6.9 ACTION B and Associated Bases
- ITS 3.6.9 ACTION B and Associated Bases
- ITS 3.6.8 ACTION B and Associated Bases

CTS 3.6.4.4 ACTION is modified by the addition of ITS 3.6.8 ACTION B which provides the remedial ACTIONS to be taken when two Hydrogen Mixing Systems are inoperable. STS B3.6.9 Bases - B.1 and B.2 contains a Reviewer's Note which states that "This condition is only allowed for units with an alternate hydrogen control system acceptable to the staff." Three of the acceptable alternate Hydrogen Control Systems specified in the write-up of STS B3.6.9 Bases - B.1 and B.2 are a Hydrogen Purge System, a Hydrogen Recombiner, and a Containment Air Dilution System. The ITS markup for ITS B3.6.8 Bases B.1 and B.2 states that the acceptable Hydrogen Control System at Farley is the Post-Accident Hydrogen Purge System. Based on the similar wording in DOCs 3/4.6.4.2-3L and 3/4.6.4.4-3L, the ITS markup of ITS B3.6.7, "Hydrogen Recombiners," and the ITS markup of ITS B3.6.9, "Reactor Cavity Hydrogen Dilution System," it would seem that the Hydrogen Recombiners and Reactor Cavity Hydrogen Dilution System are also acceptable alternate Hydrogen Control Systems which should be included in the Bases write-up to ITS B3.6.9 Bases B.1 and B.2. It is assumed that the Reactor Cavity Hydrogen Dilution System is the plant specific name for the STS Containment Air Dilution System. The addition of these acceptable alternate Hydrogen Control Systems would provide additional flexibility upon entering this ITS ACTION. See Comment Numbers 3.6.7-4 and 3.6.9-2. **Comment:** Provide a discussion and justification to show why these two alternate Hydrogen Control Systems should not be included in the Bases write-up of ITS B3.6.8. See Comment Number 3.6.7-4 and 3.6.9-2.

## SNC Response to NRC RAI Related to Chapter 3.6

### **SNC Response:**

Required Action B.1 of ITS 3.6.8 directs the user to do the following: "Verify by administrative means that the hydrogen control function is maintained." The Reactor Cavity Hydrogen Dilution system is not a replacement for the Hydrogen Recombiners or Post Accident Hydrogen Purge System. It does not have a means of controlling hydrogen and cannot reduce the containment average concentration. It provides a mixing/homogenization function to prevent the buildup of hydrogen in "pockets" in the containment. Therefore, the bases for ITS 3.6.8 should not include the Reactor Cavity Hydrogen Dilution system as an alternate hydrogen control system. Without calculations or other documentation to demonstrate that the Reactor Cavity Hydrogen Dilution system could provide a hydrogen control function, it was not added to the bases. Should future calculations or other documentation to demonstrate that the Reactor Cavity Hydrogen Dilution system could provide a hydrogen control function it could then be added to the bases.

The Hydrogen Recombiners do perform a hydrogen control function and could also be used as an alternative to the Hydrogen Mixing System. Therefore, the Hydrogen Recombiners have been added to the bases discussion as an acceptable alternative to provide additional flexibility upon entering this ITS ACTION.

### 3.6.9 Reactor Cavity Hydrogen Dilution System

#### **Question:**

3.6.9-1        DOC 3/4.6.4.3-4LA  
                  CTS 4.6.4.3.a.1  
                  ITS B3.6.9 Bases - SR 3.6.9.1

The descriptive information concerning how and where the reactor cavity hydrogen dilution fans are started specified in CTS 4.6.4.3.a.1 is moved to ITS B3.6.9 Bases - 3.6.9.1. DOC 3/4.6.4.3-4LA justifies the relocation based on consistency with the wording and detail present in NUREG-1431. Consistency with NUREG-1431 is not an acceptable justification for relocating material from the CTS to a licensee controlled document. **Comment:** Provide additional discussion and justification for this Less Restrictive change.

#### **SNC Response:**

The descriptive information concerning how and where the reactor cavity hydrogen dilution fans are started specified in CTS 4.6.4.3.a.1 is intended to provide guidance for the performance of the surveillance. As such, it is unnecessary as a TS restriction. The ITS bases provides a more appropriate location for these types of informational statements. Reliance on the information contained in the STS bases for guidance in performing the associated surveillance is acceptable since changes to the information in the bases is controlled by the Bases Control Program specified in the administrative controls

## SNC Response to NRC RAI Related to Chapter 3.6

section of the TS. DOC 3/4.6.4.3-4LA has been revised to reflect a justification similar to that above.

### **Question:**

3.6.9-2        JFD 1  
                  CTS 3.6.4.3 ACTION  
                  ITS 3.6.9 ACTIONS and Associated Bases

CTS 3.6.4.3 ACTION provides the remedial ACTIONS when one Reactor Cavity Hydrogen Dilution System is inoperable. The corresponding ITS ACTIONS are ITS 3.6.9 ACTIONS A and B. If two Reactor Cavity Hydrogen Dilution Systems are inoperable CTS 3.0.3 is entered. This would be the same CTS ACTION that would be taken if two Hydrogen Recombiners (CTS 3/4.6.4.2) or two HMS (CTS 3/4.6.4.4) are inoperable. In light of the changes made to the ACTIONS associated with CTS 3/4.6.4.2 and CTS 3/4.6.4.4 for loss of function, and Comment Numbers 3.6.7-4 and 3.6.8-2, it would seem that an ACTION similar to ITS 3.6.7 ACTION B and ITS 3.6.8 ACTION B would also be applicable to ITS 3.6.9. **Comment:** Provide a discussion and justification to show why an ACTION similar to ITS 3.6.7 ACTION B or ITS 3.6.8 ACTION B is not applicable to ITS 3.6.9. See Comment Numbers 3.6.7-4 and 3.6.8-2.

### **SNC Response:**

Currently, ITS 3.6.9 should not have ACTIONS B.1 and B.2 like ITS 3.6.7 and ITS 3.6.8. Calculations exist which indicate that the steam generator compartments will mix with the bulk of the containment with or without the Hydrogen Mixing System fans, thus control of the containment concentration also controls the steam generator compartment concentrations. However, no similar calculation has been performed for the reactor cavity and the Reactor Cavity Hydrogen Dilution System. Therefore, there is currently no basis for stating that a buildup of hydrogen in "pockets" in the containment to above the flammability limit could not occur in the reactor cavity without the reactor cavity fans operating. While it may be possible to show that in fact this is the case, SNC has not performed any such calculations. Hence, without such a basis, the administrative verification that the Hydrogen Recombiners or Post Accident Hydrogen Purge System are available is not currently justified as a substitute for the Reactor Cavity Hydrogen Dilution System.

### **Question:**

3.6.9-3        CTS 3/4.6.4.3  
                  ITS 3.6.9

In converting CTS 3/4.6.4.3 to the ITS 3.6.9 numerous reformatting, renumbering, and editorial rewording changes were made. In addition, certain wording preferences and/or English language conventions were adopted, which resulted in



**SNC Response to NRC RAI Related to Chapter 3.6**

the ITS Being more readily readable and therefore understandable by the plant operators and users. These changes did not result in any technical changes, but are considered to be Administrative changes. No discussion or justification was provided for these Administrative changes. **Comment:** Provide the appropriate discussion and justification for these Administrative changes.

**SNC Response:**

See Response to Comment Number 3.6.1-8.

## SNC Response to NRC RAI Related to Chapter 5.0

### Question:

5.2-01        DOC 7a-A  
                  ITS 5.2.2.e.1/2/3  
                  CTS 6.2.2.f. 1/2/3

The markup for CTS 6.2.2.f. 1/2/3 has the term "will" changed to "should." Although this edit makes the ITS consistent with the STS, this word change should be considered as less restrictive. **Comment:** Revise the submittal to include the appropriate DOC for this less restrictive change.

### SNC Response:

As stated in the existing DOC 7a-A, both CTS 6.2.2.f and the corresponding STS section 5.2.2.e contain an allowance (CTS 6.2.2.f.5 and in the paragraph after STS 5.2.2.e.4) for exceptions to the requirements for limiting the hours worked. As exceptions are permitted for the requirements specified in CTS subsections 6.2.2.f.1, 2, and 3, the word "should" is more correct and appropriate than the word "will" for specifying these requirements. This change does not alter the intent of the CTS requirements. The revised wording improves the internal consistency and clarity of the CTS 6.2.2.f requirements consistent with the corresponding STS requirements. However, since the meaning of the words "will" and "should" are different, apart from the context of the succeeding TS, this change can be deemed Less Restrictive. Therefore, the submittal has been revised by the revision of DOC 7a-A to DOC 7a-L and the addition of an associated Less Restrictive SHE.

### Question:

5.2-02        DOC 2-L  
                  ITS 5.1.2  
                  CTS 6.1.2  
                  DOC 11-LA and 10a-L  
                  ITS 5.2.2.f  
                  CTS 6.2.2.g  
                  DOC 12-M  
                  ITS 5.2.2.g  
                  CTS 6.2.2 insert H

DOC 2-L indicates that the specific job title "Shift Supervisor" has been deleted from ITS 5.1.2 and that this change will eliminate the need for nonessential technical specification changes due to organizational or job title changes. CTS 6.2.2.g also deletes the title of "Shift Supervisor" from ITS 5.2.2.f. Insert H from CTS 6.2.2 includes the term "... support to the Shift Supervisor..." in the explanation of the STA's duties and responsibilities. There seems to be inconsistencies in the usage/deletion of the title "Shift Supervisor." **Comment:** Revise the submittal to address inconsistencies in the usage/deletion of the title "Shift Supervisor."

SNC Response to NRC RAI Related to Chapter 5.0

**SNC Response:**

Insert H, CTS Table 6.2-1 notes, and the associated changes to the NUREG-1431 markup have been revised by replacing "Shift Supervisor" with "responsible SRO" to retain internal consistency in the ITS.

**Question:**

5.2-03            DOC 14-A  
                      CTS TABLE 6.2-1 note  
                      ITS 5.2.2.c

DOC 14-A states "... STS 5.2.2.c specifically addresses on-duty shift duty crew members which effectively addresses the CTS caveat regarding the 2 hour allowance not applying to oncoming shift crew being late or absent." ITS 5.2.2.c or STS 5.2.2.c does not specifically address this item regarding crew composition being unmanned because of late or absent oncoming shift personnel. The last sentence of the first paragraph at the end of CTS TABLE 6.2-1 is not included in the ITS conversion. Although this edit to the CTS makes the ITS consistent with the STS, the deletion of this statement is considered to be less restrictive.

**Comment:** Either revise DOC 14-A to correct the statement concerning oncoming crew shift personnel being late or absent and provide an additional LDOC to reflect this less restrictive change or include this CTS requirement in the ITS.

**SNC Response:**

The CTS mark-up and NUREG mark-up have been revised to specifically address the deletion of the following sentence: "This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent." An appropriate DOC and associated SHE have been added to the package.

**Question:**

5.5-01            DOC 34-LA  
                      CTS 6.8.3.f.ii/iii  
                      OCDM

DOC 34-LA does not specifically comment on the removal of CTS 6.8.3.f.ii/iii to the OCDM. **Comment:** Revise the CTS submittal DOC 34-LA to substantiate removal of CTS 6.8.3.f.ii/iii to the OCDM.



## SNC Response to NRC RAI Related to Chapter 5.0

### **SNC Response:**

DOC 34-LA has been revised by the addition of information related to the removal of CTS 6.8.3.ii/iii similar to the following:

In addition, 10 CFR 50, Appendix I, Section IV(B)(3) requires that the licensee establish an appropriate surveillance and monitoring program to identify changes in the use of unrestricted areas to permit modifications in monitoring programs for evaluating doses to individuals from principle pathways of exposure. Thus, equivalent requirements to the requirements of CTS 6.8.3.ii are included in 10 CFR 50, Appendix I. Finally, Regulatory Guide 4.15 describes a method acceptable to the NRC staff for designing a program to assure the quality of the results of measurements of radioactive materials in the effluents and the environment outside nuclear facilities during normal operations. Section C.6.3.2 discusses interlaboratory analyses as part of that program. CTS 6.8.1.i and ITS 5.4.1.b state that Farley will maintain procedures for effluent and environmental monitoring using the guidance in Regulatory Guide 4.15, February 1979. Therefore, equivalent requirements to the requirements of CTS 6.8.3.iii are included in Regulatory Guide 4.15 and ITS 5.4.1.b.

### **Question:**

5.5-02            DOC 36-A  
                      CTS INSERT K  
                      ITS 5.5.6  
                      DOC 1-LA  
                      CTS 3/4.6.1.6  
                      ITS 5.5.6

DOC 36-A of CTS INSERT K states "...The details of the surveillance requirements to verify containment tendon operability contained in CTS 3/4.6.1.6 are removed to a tendon surveillance program outside of the TS (as discussed within the DOC associated with the changes to CTS 3/4.6.1.6)." DOC 1-LA states "... the details of CTS 3/4.6.1.6, including the 24 hour restoration time and specific guidance for performing the required surveillances are moved into a program outside the Technical Specifications similar to existing program." Both DOCs seem to point to each other and do not provide information as to where the SR is actually going. This information should include particulars such as the program name. **Comment:** Revise the CTS submittal DOC 36-A or 1-LA to specifically state where the details of CTS 3/4.6.1.6 are going.

### **SNC Response:**

The program name is the "Pre-Stressed Concrete Containment Tendon Surveillance Program" which is described in ITS 5.5.6. The description in ITS 5.5.6 identifies the basic requirements for the program. The program itself (specific details related to the actual compliance with the requirements such as the SRs of CTS 3/4.6.1.6) is contained within

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the procedures used to comply with the requirement. Currently, they exist as surveillance procedures for the TS. After the conversion, they will exist as the implementing procedures for the program. DOC 36-A has been revised to contain information similar to that above.

**Question:**

5.5-03        DOC 40-A  
                  CTS SR 4.7.7.1.d.4  
                  ITS 5.5.11.e

CTS SR 4.7.7.1.d.4 states "... pressurization system heater dissipates  $7.5 \pm 0.8$  kW..." In contrast, ITS 5.5.11.e states for the corresponding TS "...specified below  $\pm 10\%$  when tested." Because  $10\%$  of  $7.5$  kW is  $\pm 0.75$  kW, the upper and lower limits are closer. This constitutes a (slightly) more restrictive change.

**Comment:** Revise the submittal to include the appropriate DOC for this more restrictive change or include the value ( $\pm 0.8$  kW) from the CTS in the ITS conversion.

**SNC Response:**

Insert K and the mark-up of NUREG-1431 have been revised to incorporate the CTS allowed variance of ( $\pm 0.8$  kW).

**ATTACHMENT II**

**SNC Response to NRC Request for Additional Information Related to  
Conversion to the Improved Technical Specifications - Chapters 3.6 and 5.0**

**Associated Package Changes Grouped by RAI Number**



**Associated Package Changes for RAI 3.6.1-2**