

Mr. Garry L. Randolph
Vice President and Chief Nuclear Officer
Union Electric Company
Post Office Box 620
Fulton, Missouri 65251

October 7, 1998

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON THE PROPOSED
CONVERSION TO THE IMPROVED STANDARD TECHNICAL
SPECIFICATIONS FOR CALLAWAY PLANT, UNIT 1 (TAC NO. M98803)

Dear Mr. Randolph:

The Nuclear Regulatory Commission staff is reviewing Union Electric Company's proposed license amendment to convert the current technical specifications for Callaway Plant, Unit 1 to the Improved Standard Technical Specifications. Union Electric Company provided their proposed license amendment request by letter dated May 15, 1997.

The staff has reviewed selected portions of the application. Based on its review, the staff has determined that additional information is needed in Section 3.8, Subsections 3.8.1, 3.8.2, 3.8.3, 3.8.9, and 3.8.10, Electrical Power Systems, as discussed in the enclosure. The request for additional information was electronically transmitted to your staff on October 5, 1998, to expedite the review process.

To assist the staff in maintaining its review schedule, please respond to the questions within 30 days of the date of this letter. If you have any questions regarding the RAI, please contact me at (301) 415-1362. If all four utilities would like to have a common discussion, a single meeting, or phone call, it can be coordinated by contacting the NRR Lead Project Manager, Jack Donohew at (301) 415-1307.

Sincerely,

Original Signed By

Kristine M. Thomas, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure: Request for Additional Information

cc w/enci: See next page

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cc w/encl:

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Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.6.9, 3.8.10

3.8.1, AC Sources - Operating

3.8.1-01	CP(3.8.1-01) CW WC(3.8.1-01)	ITS 3.8.1 Required Actions A.2 and B.2 ITS 3.8.1 Note for Required Action B.2 Bases for ITS 3.8.1 Required Action A.2, STS Bases markup page B 3.8-6 Bases for ITS 3.8.1 Required Action B.2, STS Bases markup page B 3.8-9 Bases for STS 3.8.1 Required Actions A.2 and B.2 Reviewer's Notes CTS 3/4.8.1.1 Action c
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Required Actions A.2 and B.2 for ITS 3.8.1 specify to declare required feature(s) with no offsite power available or supported by the inoperable DG inoperable when its required redundant feature(s) is inoperable. The Bases for STS 3.8.1 Required Actions A.2 and B.2 contain the same Reviewer's Note. The Reviewer's Notes address when the turbine driven auxiliary feedwater pump (TDAFWP) is required to be considered a redundant required feature. The Note associated with Required Action B.2 states, "In Modes 1, 2, and 3, the TDAFWP is considered a required redundant feature." Required Action A.2 does not have this Note. The Bases for Required Action A.2 states, "A TDAFWP is not required, because an additional single failure is not required to be postulated during the allowed outage time associated with this Condition." This is a proposed difference with the Bases for STS 3.8.1 Required Action A.2.

Comment: Not having a Note associated with Required Action A.2 for ITS 3.8.1 that addresses the TDAFWP appears to be inconsistent with Required Action B.2, and not in conformance with the STS Bases Reviewer's Notes. Revise the submittal to provide the explanation/justification for this apparent inconsistency and nonconformance, or add a Note addressing the TDAFWP to Required Action A.2

No justification has been provided to support the proposed Bases difference. Revise the submittal to provide the appropriate justification or expand the Bases to address including the TDAFWP as a redundant required feature.

Licensee Response:

3.8.1-02	CW WC(3.8.1-02)	ITS 3.8.1 Required Action F.2 CTS Table 3.3-3 item 10, Action 25
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Required Action F.2 for ITS 3.8.1 states, "Restore required LSELS to Operable status," with a Completion Time of 12 hours. This is a proposed change relative to Action 25 for item 10 for corresponding CTS Table 3.3-3.

Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

Comment: If the LSELS inoperability causes both offsite and onsite power sources to the bus to be inoperable. This constitutes a dead bus. A dead bus invokes LCO 3.8.9 and its requirement to restore the bus to OPERABLE status is 8 hours - should the completion time of 12 hours be changed?

Licensee Response:

3.8.1-03	CP(3.8.1-06) CW DC(3.8.1-14) WC(3.8.1-03)	ITS SR 3.8.1.3 Note 4 STS SR 3.8.1.3 Note 4 CTS 4.8.1.1.2.a.5
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Note 4 for STS SR 3.8.1.3 states, "This SR shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2 or SR 3.8.1.7." This Note has been adopted in corresponding ITS SR 3.8.1.3, and is a proposed change relative to corresponding CTS 4.8.1.1.2.a.5.

Comment: The CTS markup does not show this proposed change, and no justification has been provided to support the proposed change. Revise the submittal to show the proposed change on the CTS markup, and provide the appropriate justification.

Licensee Response:

3.8.1-04	CW WC(3.8.1-05)	STS SR 3.8.1.8 Bases for STS SR 3.8.1.8 ITS 3.8.1
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STS SR 3.8.1.8 requires verifying the transfer of AC power sources from the normal offsite circuit to each alternate offsite circuit. This requirement has not been adopted in corresponding ITS 3.8.1.

Comment: No justification has been provided to support the proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference.

Licensee Response:

Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

3.8.1-05 CW DOC 01-36-A
ITS SR 3.8.1.10
STS SR 3.8.1.10
CTS 4.8.1.1.2.g.1

STS SR 3.8.10 refers to each DG operating at a power factor \leq [0.9]. This requirement has been adopted in corresponding ITS SR 3.8.10; and is a proposed change relative to corresponding CTS 4.8.1.1.2.g.1 which refers to a power factor between 0.8 and 0.9. The proposed change has been categorized as administrative.

Comment: The proposed change appears to be less restrictive. DOC 01-36-A does not explain why the proposed change is acceptable. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

3.8.1-06 CW JFD 3.8-19
ITS SR 3.8.1.13 item f
CTS 4.8.1.1.2.g.5 item a
STS SR 3.8.1.13

CTS 4.8.1.1.2.g.5 item a requires verifying that the high jacket coolant temperature automatic trip is not bypassed during the test. This requirement has been adopted as item f for corresponding ITS SR 3.8.1.13, and is a proposed difference relative to corresponding STS SR 3.8.1.13.

Comment: JFD 3.8-19 does not explain why this proposed difference is acceptable. Revise the submittal to explain why the proposed difference is acceptable.

Licensee Response:

3.8.1-07 CW DOC 01-36-A
ITS SR 3.8.1.14
CTS 4.8.1.1.2.g.6

CTS 4.8.1.1.2.g.6 requires verifying full-load carrying capability of the diesel generator at a power factor between 0.8 and 0.9. Corresponding ITS SR 3.8.1.14 requires each DG to be operating at a power factor \leq 0.9. The proposed change has been categorized as administrative.

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

Comment: The proposed change appears to be less restrictive. DOC 01-36-A does not explain why the proposed change is acceptable. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

3.8.1-08	CW WC(3.8.1-09)	DOC 01-58-LG CTS SR 4.8.1.1.2.g.9
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CTS 4.8.1.1.2.g.9 requires verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the day tank of each diesel via the installed cross-connection lines. DOC 01-58-LG states that this requirement would be moved to licensee-controlled documents.

Comment: DOC 01-58-LG does not explain the purpose of this SR. Revise the submittal to explain why that purpose is not required from a safety perspective.

Licensee Response:

3.8.1-09	CW	Bases for ITS LCO 3.8.1, STS Bases markup page B 3.8-4 Bases for STS LCO 3.8.1
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The Bases for ITS LCO 3.8.1 states, "The diesel generators may be considered Operable with their associated ventilation supply fans (CGM01A/B) inoperable, as long as the outside ambient temperature is less than or equal to 65°F." This is a proposed difference relative to the Bases for corresponding STS LCO 3.8.1.

Comment: No justification has been provided to support this proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference.

Licensee Response:

3.8.1-10	CW DC(3.8.1-27)	Bases for ITS LCO 3.8.1, STS Bases markup page 4 Bases for STS LCO 3.8.1
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The Bases for STS LCO 3.8.1 addresses fast transfer capability and interlock mechanisms with respect to the offsite AC sources. This material has not been adopted in the Bases for corresponding ITS LCO 3.8.1.

Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

Comment: No justification has been provided for this proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference.

Licensee Response:

3.8.1-11 CW Bases for ITS 3.8.1 Required Action A.2, STS
Bases markup page B 3.8-6,
third and fifth paragraphs
Bases for STS 3.8.1 Required Action A.2

The Bases for Required Action A.2 for ITS 3.8.1 states, "... coincident with no offsite power to one train of the onsite Class 1E Electrical Power Distribution System." The Bases goes on to state, "Required Action A.2 is no longer applicable when the train of onsite Class 1E Electrical Power Distribution System is connected to the remaining Operable offsite circuit. In this case Required Actions A.1 and A.3 continue to apply." These are proposed differences relative to the Bases for Required Action A.2 for corresponding STS 3.8.1.

Comment: No justification has been provided to support these proposed differences. Revise the submittal to provide the appropriate justification for the proposed differences.

Licensee Response:

3.8.1-12 CW Bases for ITS 3.8.1 Required Actions C.1 and C.2,
STS Bases markup page B 3.8-12
Bases for STS 3.8.1 Required Actions C.1 and C.2

The Bases for Required Actions C.1 and C.2 for ITS 3.8.1 states, "A turbine driven auxiliary feedwater pump is not required because an additional single failure is not required to be postulated during the allowed outage time associated with this Condition." This is a proposed difference relative to the Bases for Required Actions C.1 and C.2 for corresponding STS 3.8.1.

Comment: No justification has been provided to support this proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference.

Licensee Response:

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

conform to the STS.

Licensee Response:

3.8.1 No Beyond Scope items

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

3.8.2, AC Sources - Shutdown

3.8.2-01	CP(3.8.2-01) CW WC(3.8.2-01)	JFD 3.8-45 ITS LCO 3.8.2 STS LCO 3.8.2 Bases for ITS LCO 3.8.2.1, STS Bases markup page B 3.8-40 Bases for STS LCO 3.8.2.1
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STS LCO 3.8.2 refers to the onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.10. ITS LCO 3.8.2 refers to subsystem not subsystem(s). The Bases for ITS LCO 3.8.2.1 refers to when the second train of AC electrical power distribution is needed to support redundant required systems, equipment, and components.

Comment: ITS LCO 3.8.2 seems not to provide all of the requirements needed for the Applicability. JFD 3.8-45 does not explain why the proposed difference is acceptable. Revise the submittal to provide the appropriate justification for the proposed difference, or conform to the STS.

Licensee Response:

3.8.2-02	CP(3.8.2-05) CW DC(3.8.2-01) WC(3.8.2-02)	DOC 01-44-LG CTS 3/4.8.1.2 Action ITS 3.8.2
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The Action for CTS 3/4.8.1.2 states, "... or crane operation with loads over the spent fuel pool." This material is not being retained in corresponding ITS 3.8.2 in accordance with the STS. DOC 01-44-LG states that this material is being moved to licensee controlled documents.

Comment: DOC 01-44-LG does not provide an adequate justification for relocating the CTS requirements regarding crane operation with heavy loads over the spent fuel pool.

Licensee Response:

3.8.2-03	CP(3.8.2-07) CW DC(3.8.2-03) WC(3.8.2-03)	DOC 01-47-LS CTSs 4.8.1.2 and 4.8.1.1.2.h ITS SRs 3.8.2.1 and 3.8.1.20 Bases for ITS SR 3.8.2.1, STS Bases markup page B 3.8-43
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Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

CTS 4.8.1.2 states that CTS 4.8.1.1.2.h is applicable in Modes 5 and 6. ITS 3.8.2.1 states that corresponding ITS SR 3.8.1.20 is not applicable in Modes 5 and 6 in accordance with the STS.

Comment: DOC 01-47-LS does not explain why the proposed change is acceptable. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

3.8.2-04	CW	Bases for ITS LCO 3.8.2.1, STS Bases markup page B 3.8-41 Bases for STS LCO 3.8.2.1
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The Bases for ITS LCO 3.8.2.1 states, "The diesel generators may be considered Operable with their associated ventilation supply fans (CGM01A/B) inoperable as long as the outside ambient temperature is less than or equal to 65°F." This is a proposed difference relative to the Bases for STS LCO 3.8.2.1.

Comment: No justification has been provided to support the proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference, or conform to the STS.

Licensee Response:

3.8.2-05	CP(3.8.2-08) CW WC(3.8.2-06)	Bases for ITS LCO 3.8.2.1, STS Bases markup page B 3.8-40 Bases for STS LCO 3.8.2.1
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The Bases for ITS 3.8.2.1 states, "... when the second train of AC electrical power distribution is needed to support redundant required systems, equipment, and components, an offsite circuit must also support the second AC electrical power distribution train to the extent necessary to power the redundant required systems, equipment, and components." This is a proposed difference relative to the Bases for STS LCO 3.8.2.1.

Comment: The Bases does not address the DG support that is required when the second AC electrical power distribution train is needed to support redundant required systems, equipment, and components. Revise the submittal to expand the Bases to address this issue.

Licensee Response:

3.8.2	No Beyond Scope Items
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**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

3.8.3, Diesel Fuel Oil, Lube Oil, and Starting Air

3.8.03-01	CW DC(3.8.03-01) WC(3.8.03-01)	DOC 01-49-LS ITS 3.8.3 Condition A
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Condition A for ITS 3.8.3 addresses the storage tank fuel level for one or more DGs. Associated Required Action A.1 requires to restore the fuel oil level to within limits with a Completion Time of 48 hours. These are proposed changes relative to the CTS.

Comment: DOC 01-49-LS does not explain why these proposed changes are acceptable. Revise the submittal to provide the appropriate justification for the proposed changes.

Licensee Response:

3.8.03-02	CW WC(3.8.03-02)	DOC 01-49-LS ITS 3.8.3 Condition A
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Condition A for ITS 3.8.3 addresses one or more DGs with fuel level > 68,915 gal in the storage tank. This is a proposed change relative to the CTS.

Comment: DOC 01-49-LS does not provide specific technical justification for this value. Revise the submittal to provide the justification for this value.

Licensee Response:

3.8.03-03	CW DC(3.8.03-03) WC(3.8.03-03)	DOC 01-48-M ITS SR 3.8.3.2 Bases for ITS SR 3.8.3.2, STS Bases markup page B 3.8-51 STS SR 3.8.3.2 ITS 3.8.3 Condition B
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STS SR 3.8.3.2 requires verifying the lubricating oil inventory. This requirement has been adopted as corresponding ITS SR 3.8.3.2 which requires verifying lubricating oil inventory is \geq 750 gal. Condition B for ITS 3.8.3 addresses one or more DGs with lube oil inventory < 750 gal and > 686 gal. These are proposed changes relative to the CTS.

Comment: DOC 01-48-M does not provide specific technical justification for these values. Revise the submittal to provide the justification for these values.

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

Licensee Response:

3.8.03-04	CP(3.8.03-01) CW DC(3.8.03-05) WC(3.8.03-05)	DOC 01-48-M ITS SR 3.8.3.4 STS SR 3.8.3.4 ITS 3.8.3 Condition E Bases for ITS 3.8.3 Required Action E.1, STS Bases markup page B 3.8-50
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STS SR 3.8.3.4 requires verifying each DG air start receiver pressure. This requirement has been adopted as corresponding ITS SR 3.8.3.4 which requires verifying pressure in two starting air receivers is ≥ 435 psig or pressure in one starting air receiver is ≥ 610 psig, for each DG starting air subsystem. Condition E for ITS 3.8.3 addresses one or more DGs with two starting air receivers Operable with pressure < 435 psig and ≥ 250 psig or one or more DGs with only one starting air receiver Operable with pressure < 610 psig and ≥ 300 psig. These are proposed changes relative to the CTS.

Comment: DOC 01-48-M does not provide specific technical justification for these values. Revise the submittal to provide the justification for these values.

Action would not be required if the starting air receivers were Operable. Revise the submittal to delete the term "Operable" from Condition E.

Licensee Response:

3.8.03-05	CW DC(3.8.03-12) WC(3.8.03-07)	DOC 01-01-A ITS SR 3.8.3.1 CTS 4.8.1.1.2.a.2
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CTS 4.8.1.1.2.a.2 requires verifying the fuel level in the fuel storage tank. Corresponding ITS SR 3.8.3.1 requires verifying that each fuel oil storage tank contains $\geq 80,400$ gal of fuel.

Comment: DOC 01-01-A does not address the proposed change. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

3.8.03-06	CW WC(3.8.03-08) ITS 3.8.3	DOC 01-01-A CTS 3/4.8.1.1 Action g footnote *
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Footnote * to CTS 3/4.8.1.1 Action g states, "The properties of API Gravity, specific gravity or an absolute specific gravity; kinematic viscosity; water and sediment content; and flash point shall be confirmed to be within the Diesel Fuel Oil Testing Program limits prior to the addition of new fuel oil to the Diesel Fuel Oil Storage Tanks." This requirement has not been retained in corresponding ITS 3.8.3.

Comment: DOC 01-01-A does not address this proposed change. Revise the submittal to provide the appropriate justification to support the proposed change.

Licensee Response:

3.8.03-07	CW	Bases for ITS LCO 3.8.3, STS Bases markup page B 3.8-47 Bases for STS LCO 3.8.3
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The Bases for ITS LCO 3.8.3 states, "Both emergency diesel generators are inoperable when the diesel fuel oil transfer systems are cross-connected by opening isolation valves JEV007 and JEV008." This is a proposed difference relative to the Bases for corresponding STS LCO 3.8.3.

Comment: The ITS Bases does not explain why both emergency diesel generators are inoperable. Revise the Bases to explain why both emergency diesel generators are inoperable.

Licensee Response:

3.8.03-08	CW WC(3.8.03-09)	Bases for ITS SR 3.8.3.2, STS Bases markup page B 3.8-51 Bases for STS SR 3.8.3.2
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The Bases for STS SR 3.8.3.2 describes the requirement to verify the capability to transfer the lube oil from its storage location to the DG when the DG lube oil sump does not hold adequate inventory. This material has not been adopted in the Bases for corresponding ITS SR 3.8.3.2.

Comment: No justification has been provided to support this proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference.

Licensee Response:

Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

3.8.03-09	CW DC(3.8.03-13) WC(3.8.03-10)	Bases for ITS SR 3.8.3.4, STS Bases markup page B 3.8-53 Bases for STS SR 3.8.3.4
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The Bases for STS SR 3.8.3.4 states, "[A start cycle is defined by the DG vendor, but usually is measured in terms of time (seconds of cranking) or engine cranking speed.] The Bases for corresponding ITS SR 3.8.3.4 states, "A start cycle is defined as 3 seconds of cranking time or approximately 2 to 3 engine revolutions."

Comment: No justification has been provided to support these proposed values. Revise the submittal to provide the appropriate justification for these values.

Licensee Response:

3.8.03-10	CW(See 3.8.03-06)	DOC 01-01-A CTS 3/4.8.1.1 Action g footnote * ITS 3.8.1
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Footnote * for Action g for CTS 3/4.8.1.1 states, "The properties of API Gravity, specific gravity or absolute specific gravity; kinematic viscosity; water and sediment content; and flash point shall be confirmed to be within the Diesel Fuel Oil Testing Program limits prior to the addition of new fuel to the Diesel Fuel Storage Tanks." This requirement has not been retained in corresponding ITS 3.8.3.

Comment: DOC 01-01-A does not address this proposed change. Revise the submittal to provide the appropriate justification for this proposed change.

Licensee Response:

3.8.3	No Beyond Scope items
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Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10

3.8.9, Distribution Systems - Operating

3.8.9-01	CW WC(3.8.09-01)	ITS 3.8.9 Condition B and Required Action B.1 STS 3.8.9 Condition B and Required Action B.1 CTS 3/4.8.3.1 Action
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Condition B and Required Action B.1 for STS 3.8.9 specify requirements in the event that one AC vital bus becomes inoperable. These requirements have been adopted as Condition B and Required Action B.1 for corresponding ITS 3.8.9 which require that with one AC vital bus subsystem inoperable, restore the AC vital bus subsystem to Operable status with a Completion Time of 2 hours. This is a proposed change relative to the Action for corresponding CTS 3/4.8.3.1 which states, "With one AC vital bus either not energized from its associated inverter, or ... (1) reenergize the AC vital bus within 2 hours ..."

Comment: No justification has been provided for this proposed administrative change. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

3.8.9-02	CP(3.8.9-04) CW	Bases for ITS LCO 3.8.9, STS Bases markup page B 3.8-91 Bases for STS LCO 3.8.9
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The Bases for ITS LCO 3.8.9 describes the effect of closing tie breakers 52NG0116 or 52NG0216. This description is a proposed difference relative to the Bases for corresponding STS LCO 3.8.9.

Comment: No justification has been provided to support the proposed difference. Revise the submittal to provide the appropriate justification.

Licensee Response:

3.8.9 No Beyond Scope items

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

3.8.10, Distribution Systems - Shutdown

3.8.10-01	CP(3.8.10-01) CW DC(3.8.10-0-1) WC(3.8-10-01)	DOC 03-06-LS JFD 3.8-45 ITS LCO 3.8.10 STS LCO 3.8.10 CTS 3.8.3.2 Bases for ITS LCO 3.8.10, STS Bases markup page B 3.8-102
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STS LCO 3.8.10 specifies, "The necessary portion of the AC, DC, and AC vital bus electrical power distribution subsystems ..." Corresponding ITS LCO 3.8.10 specifies, "The necessary portion of the Train A or Train B AC, DC, and AC vital bus electrical power distribution subsystems shall be operable ..." JFD 3.8-45 states that the power distribution systems have been revised to retain the CTS requirement that one train shall be operable when shutdown. Corresponding CTS 3.8.3.2 states, "As a minimum, one of the following 120 VAC vital electrical buses shall be energized in the specified manner: ..." DOC 03-06-LS merely restates the proposed change.

Comment: The CTS requires an entire train of 120 VAC vital electrical buses to be Operable. The ITS requires the necessary portion of an entire electrical train of buses to be Operable. DOC 03-06-LS does not explain why the proposed change is acceptable. Revise the submittal to provide the appropriate justification for the proposed change.

Licensee Response:

3.8.10-02	CP(3.8.10-02) CW WC(3.8.10-02)	DOC 03-06-LS JFD 3.8-45 ITS LCO 3.8.10 STS LCO 3.8.10 CTS 3.8.3.2 Bases for ITS LCO 3.8.10, STS Bases markup page B 3.8-102, last two paragraphs
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STS LCO 3.8.10 states, "... shall be Operable to support equipment required to be Operable." Corresponding ITS LCO 3.8.10 states, "... shall be Operable to support one train of equipment required to be Operable." JFD 3.8-45 also refers to "one train of equipment required to be Operable." Corresponding CTS 3.8.3.2 does not contain any reference to supported equipment required to be Operable. DOC 03-06-LS refers to "... equipment required to be operable in this plant condition ..." The Bases for ITS LCO 3.8.10 refers to providing support for redundant required systems.

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

Comment: There appears to be a discrepancy between ITS LCO 3.8.10 and the Bases for ITS LCO 3.8.10. Confirm that only one train of supported equipment is required to be

Operable in Modes 5 and 6, or revise ITS LCO 3.8.10 to conform to the STS.

Licensee Response:

3.8.10-03	CP(3.8.10-03) CW DC(3.8.10-02) WC(3.8.10-03)	DOC 03-03-LS CTS 3/4.8.3.2 Action ITS 3.8.10 Condition A and Required Action A.2.4 STS 3.8.10 Condition A and Required Action A.2.4
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Condition A for STS 3.8.10 addresses, "One or more required AC, DC, or AC vital bus electrical power distribution subsystems inoperable." This has been adopted as Condition A for corresponding ITS 3.8.10, and is a proposed change relative to the Action for corresponding CTS 3/4.8.3.2 which states, "Without one of the above required 120 volt AC vital electrical buses energized in the required manner..." Required Action A.2.4 for STS 3.8.10 states, "Initiate actions to restore required AC, DC, and AC vital bus electrical power distribution subsystems to Operable status." This requirement has been adopted as Required Action A.2.4 for corresponding ITS 3.8.10, and is a proposed change relative to the Action for corresponding CTS 3/4.8.3.2.

Comment: DOC 03-03-LS does not address these proposed changes. Revise the submittal to provide the appropriate justification for these proposed changes.

Licensee Response:

3.8.10-04	CW WC(3.8.10-04)	Bases for Applicable Safety Analyses for ITS 3.8.10, STS Bases markup pages B 3.8- 100 and 101 Bases for Applicable Safety Analyses for STS 3.8.10
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The Bases for the Applicable Safety Analyses for ITS 3.8.10 contains generic descriptive material that compares the requirements in Modes 5 and 6 with those in Modes 1, 2, 3, and 4. This is a proposed difference relative to the Bases for the Applicable Safety Analyses for corresponding STS 3.8.10.

Comment: No justification has been provided to support this proposed difference. Revise the submittal to provide the appropriate justification for the proposed difference or conform to the

**Callaway Improved TS Review Comments
ITS Section 3.8, Electrical Power Systems
3.8.1, 3.8.2, 3.8.3, 3.8.9, 3.8.10**

STS.

Licensee Response:

3.8.10-05	CP(3.8.10-04) CW WC(3.8.10-05)	Bases for ITS LCO 3.8.10, STS Bases markup page B 3.8-102 Bases for STS LCO 3.8.10
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The Bases for ITS LCO 3.8.10 states that when the second DC electrical power distribution train or the second subsystem of AC vital bus electrical power distribution is needed to support redundant required systems, equipment and components, the second train may be energized from any available source. This is a proposed difference with the Bases for corresponding STS LCO 3.8.10.

Comment: No justification has been provided to support this proposed difference. Revise the submittal to provide the appropriate justification for this proposed difference, or conform to the STS. The justification shall include an evaluation of all of the events identified in the USAR that are postulated to occur during the Applicability, with a determination of the acceptability of not requiring the second DC train and the second subsystem of AC vital bus to be energized by their respective associated sources. The evaluation should confirm that all of the equipment that is assumed to operate to mitigate the various postulated events can still be relied on to operate with this proposed change.

Licensee Response:

3.8.10 No Beyond Scope items
