

Request for Additional Information No. 74 (953), Revision 0

9/30/2008

U. S. EPR Standard Design Certification  
AREVA NP Inc.  
Docket No. 52-020  
SRP Section: 16 - Technical Specifications  
Application Section: 16  
CTSB Branch

QUESTIONS

16-1

Tech Spec 3.8.1 AC Sources - Operating

Explain omission of the surveillance requirement for verifying the interval between each sequenced load block (for the load sequencer function) from the EPR SRs.

WOG SR 3.8.1.18 (Emergency Load Sequencer interval verification between each sequenced load block) is omitted from the EPR SRs.

a. 3.8.1 EPR Bases "Background" section states:

"Following the trip of offsite power, the Protection System strips nonpermanent loads from the ESF bus. When the EDG is tied to the ESF bus, loads are then sequentially connected to its respective bus by the Protection System. The sequencing logic prevents overloading the EDG."

b. 3.8.1 EPR Bases "LCO" section states:

"Proper sequencing of loads is a required function for EDG Operability."

c. WOG SR 3.8.1.18 Bases states:

"Under accident [and loss of offsite power] conditions, loads are sequentially connected to the bus by the [automatic load sequencer]. The sequencing logic controls the permissive and starting signals to motor breakers to prevent overloading of the DGs due to high motor starting currents. The [10] percent load sequence time interval tolerance ensures that sufficient time exists for the DG to restore frequency and voltage prior to applying the next load and that safety analysis assumptions regarding ESF equipment time delays are not violated."

Information required in order to ensure that a surveillance requirement designed to prevent diesel overloading during auto load sequencing is not missed.

16-2

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10 percent difference in steady state voltage upper limit.

EPR SR 3.8.1.12.b specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.12.b specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent of rated voltage for both EPR and WOG STSs. Provide a discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10 percent.

16-3

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10 percent difference in steady state voltage upper limit.

EPR SR 3.8.1.11.c.3 specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.11.c.3 specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent of rated voltage for both EPR and WOG STSs. Provide a discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10. percent

16-4

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10 d percent difference in steady state voltage upper limit.

EPR SR 3.8.1.18.c.3 specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.19.c.3 specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent of rated voltage for both EPR and WOG STSs. Provide a discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence

to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10 percent.

16-5

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10 percent difference in steady state voltage upper limit.

EPR SR 3.8.1.9.b specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.9.b specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent of rated voltage for both EPR and WOG STSs. Provide a discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10 percent.

16-6

Tech Spec 3.8.1 AC Sources - Operating

Reformat the NOTE associated with Required Action B.4 in accordance with Tech Spec Writer's Guide TSF-GG-05-01, Section 2.1.4.

NOTE placement and width incorrect for the NOTE pertaining to Required Action B.4.

16-7

Tech Spec 3.8.1 AC Sources - Operating

Validate EPR SR 3.8.1.9.a "Single largest load rejection" frequency value of 64.5 Hz.

EPR SR 3.8.1.9.a for "Single largest load rejection" specifies a frequency value of 64.5 Hz. WOG SR 3.8.1.9.a frequency is 63 Hz. EPR Bases and Reg Guide 1.9 both state:

"During recovery from transients caused by disconnection of the largest single load, the speed of the diesel generator should not exceed the nominal speed plus 75 percent of the difference between nominal speed and the overspeed trip set point, or 115 percent of nominal (whichever is lower)."

Information required in order to ensure that the frequency requirement following load rejection (single largest load) is conservative when evaluating diesel operability.

16-8

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.8 and associated Bases.

EPR SR 3.8.1.8 omits the bracketed NOTE in WOG SR 3.8.1.8 which addresses Mode restrictions associated with performance of the surveillance. EPR Bases also omits a discussion explaining the purpose of the NOTE which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.9 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in the Bases of WOG SR 3.8.1.9 when justifying omission of the Mode Restriction information from EPR SR 3.8.1.8.

16-9

Tech Spec 3.8.1 AC Sources - Operating

Explain omission of surveillance requirement from EPR SR 3.8.1.12 for verifying energization of emergency loads via auto load sequencing and omission of the auto load sequencing discussion from the associated EPR Bases.

EPR SR 3.8.1.12 does not include a step similar to WOG SR 3.8.1.12.e for verifying that emergency loads are energized or auto-connected via automatic load sequencing from offsite power. EPR Bases omits the discussion contained in WOG Bases 3.8.1.12 associated with the energization of emergency loads from the offsite electrical power system on an ESF signal without a loss of offsite power.

Information required in order to ensure that a surveillance requirement associated with the automatic load sequencing function is not missed for emergency loads energized via the offsite power system following a Safety Injection System actuation signal.

16-10

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10percent difference in steady state voltage upper limit.

EPR SR 3.8.1.15.b specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.15.b specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent

of rated voltage for both EPR and WOG STSs. No discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10 percent.

16-11

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.10 and associated Bases.

EPR SR 3.8.1.10 omits bracketed NOTE 1 in WOG SR 3.8.1.10 which addresses Mode restrictions associated with performance of the surveillance. EPR Bases also omits the discussion which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.10 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in justifying omission of the Mode Restriction information.

16-12

Tech Spec 3.8.1 AC Sources - Operating

Explain 15 second EDG time requirement to achieve required voltage and frequency.

EPR SR 3.8.1.19.a specifies  $\leq 15$  seconds for each EDG to achieve required voltage and frequency upon a simultaneous start of the EDGs. Corresponding WOG SR 3.8.1.20.a specifies  $\leq 10$  seconds. Chapter 15 Table 15.0-8, Engineered Safety Features Functions Used in the Accident Analysis (Sheet 1 of 3), does not unequivocally specify the 15 second time requirement. The time delays listed in Table 15.0-8 for SIS Actuation Functions are 40 seconds for SIS delivery concurrent with a LOOP. EDG loading time is included in the 40 seconds.

Information required to:

1) Conclusively determine whether or not the 15 second start requirement supports the assumptions of the design basis LOCA analysis.

2) Conclusively validate the 15 second time requirement for achieving required voltage and frequency from the information provided in Chapter 15.

16-13

Tech Spec 3.8.1 AC Sources - Operating

Explain 15 second start time requirement for minimum voltage and frequency.

SR 3.8.1.7 EPR specifies a 15 second start time requirement for minimum voltage and frequency to be obtained. SR 3.8.1.7 WOG STS specifies a 10-second requirement. Chapter 15 Table 15.0-8, Engineered Safety Features Functions Used in the Accident Analysis (Sheet 1 of 3), does not unequivocally specify the 15 second time requirement. The time delays listed in Table 15.0-8 for SIS Actuation Functions are 40 seconds for SIS delivery concurrent with a LOOP. EDG loading time is included in the 40 seconds.

Information required to:

- 1) Conclusively determine whether or not the 15 second start requirement supports the assumptions of the design basis LOCA analysis.
- 2) Conclusively validate the 15 second time requirement for achieving required voltage and frequency from the information provided in Chapter 15.

16-14

Tech Spec 3.8.1 AC Sources - Operating

Provide Design-Based Justification for the 92-day SR Frequency for the fuel transfer systems .

Frequency established for EPR SR 3.8.1.6 is 92 days. The Frequency for this SR is variable, depending on individual system design, with up to a 92 day interval. The 92 day Frequency corresponds to the testing requirements for pumps as contained in the ASME Code for Operation and Maintenance of Nuclear Power Plants; however, the design of fuel transfer systems is such that pumps operate automatically or must be started manually in order to maintain an adequate volume of fuel oil in the day tanks during or following DG testing. In such a case, a 31 day Frequency is appropriate. Since proper operation of fuel transfer systems is an inherent part of DG OPERABILITY, the Frequency of this SR should be modified to reflect individual designs. EPR SR 3.8.1.6 Bases states that a 92-day frequency is appropriate considering the reliability and redundancies of the system.

Additional information required in order to determine which SR Frequency, 31-day or 92-day, is more appropriate based on the individual design of the Fuel Oil Transfer System.

6-15

Tech Spec 3.8.1 AC Sources - Operating

Explain 5 percent versus 10 percent difference in steady state voltage upper limit.

EPR SR 3.8.1.2 specifies a steady state voltage upper limit of 7260 V which is 5 percent above rated voltage (6900 V). WOG SR 3.8.1.2 specifies a steady state upper limit of 10 percent above rated voltage. Lower limits are 90 percent of rated voltage for both EPR and WOG STSs. Provide a discussion in the EPR Bases regarding the 5 percent difference.

Additional information required in order to ensure EDG Operability is not adversely impacted by failing to perform surveillance testing requiring adherence to a tighter band of +/-5 percent as opposed to the existing + 5 percent and -10 percent.

16-16

Tech Spec 3.8.1 AC Sources - Operating

Explain and justify omission of Automatic Load Sequencers from LCO 3.8.1.

EPR STS LCO does not have a third condition "Charlie" for Automatic Load Sequencer Operability. Load sequencers condition is bracketed in both WOG STS and Bases:

WOG STS - [c. Automatic load sequencers for Train A and Train B.]

WOG Bases - [In addition, one required automatic load sequencer per train must be OPERABLE.]

3.8.1 EPR Bases "LCO" section states:

"Proper sequencing of loads is a required function for EDG OPERABILITY."  
"Each EDG must be capable of accepting required loads within the assumed loading sequence intervals, and continue to operate until offsite power can be restored to the ESF buses."

3.8.1 EPR Bases "Background" section states:

"Following the trip of offsite power, the Protection System strips nonpermanent loads from the ESF bus. When the EDG is tied to the ESF bus, loads are then sequentially connected to its respective bus by the Protection System. The sequencing logic prevents overloading the EDG".

Information required in order to fully understand the automatic load sequencing function as it relates to EDG operability and the Protection System. Although the auto load sequencing function is actually performed by the Protection System, there are no surveillance requirements in TS 3.3.1 to verify operability of the load sequencer. The load sequencing function is apparently verified under SR 3.8.1.11. If the load sequencer failed, the associated EDG would be

rendered inoperable due to inability to successfully complete the SR. The fact that operability of the load sequencing function is neither included in or surveilled under Protection System LCO 3.3.1, as well as being excluded from AC Sources - Operating LCO 3.8.1, requires justification in order to clearly understand the operability issues as they relate to both LCOs. Additional information to include an explanation justifying why the LCO Condition for "Automatic Load Sequencer Inoperability" was omitted based on the "Reviewers Note" in Condition "F" of the WOG STS 3.8.1.

16-17

Tech Spec 3.8.1 AC Sources - Operating

Revise Required Action D.1 Condition reference.

Completion Time for Condition D.1 incorrectly references Condition "C" instead of "D."

16-18

Tech Spec 3.8.1 AC Sources - Operating

Enhance C.1/C.2 Bases discussion in order to provide a clearer understanding of how Required Actions C.1 and C.2 are able to ensure availability of sufficient standby AC sources to 1) power the minimum required ESF Functions, and 2) achieve completion of required safety functions following an AOO or postulated accident, regardless of which two diesels are inoperable.

C.1/C.2 Bases currently states that with one EDG in both divisional pairs inoperable and the alternate feeds not aligned, there may be no remaining standby AC sources for certain required safety systems, safety support systems, and components that do not have 100 percent four division redundancy. Bases goes on to state that completing Required Action C.1 restores the required redundancy in the AC power source for required safety systems, safety support systems, and components necessary to ensure completion of the safety function. Bases also states that, if two diesels in one divisional pair are inoperable, the remaining operable divisional pair is capable of providing sufficient AC power to ensure the completion of all safety functions for a postulated accident in the absence of a single failure.

Although the Bases states that the onsite AC power system is able to ensure completion of required safety functions for different combinations of inoperable diesel pairs, it does not describe how this is done. From a safety system perspective, the Bases needs to clearly describe the individual system impact relative to the divisional pair concept when two diesels are inoperable, and the capabilities of the onsite AC power system to restore equipment power and functionality to each of these systems.

Bases enhancement is required in order to fully understand the onsite AC power system ability to accomplish completion of required safety functions following an AOO or postulated accident when two diesels are inoperable. Provide the

necessary information in the Bases that demonstrates the onsite AC power systems ability to meet the required safety functions.

16-19

Tech Spec 3.8.1 AC Sources - Operating

Reformat NOTE associated with Required Action C.1 in accordance with Tech Spec Writer's Guide TSF-GG-05-01, Section 2.1.4.

NOTE placement and width incorrect for the NOTE pertaining to Required Action C.1.

16-20

Tech Spec 3.8.1 AC Sources - Operating

Justify 15 second EDG energization time requirement on an actual or simulated LOOP. Clarify whether the 15 seconds is for the "energization of permanently connected loads" or the time requirement for achieving required voltage and frequency.

EPR SR 3.8.1.11.c.1 specifies  $\leq$  15 seconds for ENERGIZATION OF PERMANENTLY CONNECTED LOADS on an actual or simulated LOOP. WOG SR specifies  $\leq$  10 seconds. EPR 3.8.1.11 Bases states: "The EDG autostart time of 15 seconds is derived from requirements of the accident analysis to respond to a postulated large break LOCA."

Chapter 15 Table 15.0-8, Engineered Safety Features Functions Used in the Accident Analysis (Sheet 1 of 3), does not unequivocally specify the 15 second time requirement. The time delays listed in Table 15.0-8 for SIS Actuation Functions are 40 seconds for SIS delivery concurrent with a LOOP. EDG loading time is included in the 40 seconds.

Information required to:

- 1) Clarify whether the 15 seconds is for the "energization of permanently connected loads" as stated in SR 3.8.1.11.a or the time requirement for achieving required voltage and frequency, based on the 40 second diesel loading time specified in Table 15.0-8.
- 2) Conclusively determine whether or not the 15 second start requirement supports the assumptions of the design basis LOCA analysis.
- 3) Conclusively validate the 15 second time requirement from the information provided in Chapter 15.

16-21

Tech Spec 3.8.1 AC Sources - Operating

Explain the 15 second time requirement for achieving required voltage and frequency upon receipt of an actual or simulated Safety Injection System Actuation signal.

EPR SR 3.8.1.12.a specifies  $\leq 15$  seconds for achieving required voltage and frequency upon receipt of an actual or simulated Safety Injection System Actuation Signal. WOG SR specifies  $\leq 10$  seconds. Chapter 15 Table 15.0-8, Engineered Safety Features Functions Used in the Accident Analysis (Sheet 1 of 3), does not unequivocally specify the 15 second time requirement. The time delays listed in Table 15.0-8 for SIS Actuation Functions are 40 seconds for SIS delivery concurrent with a LOOP. EDG loading time is included in the 40 seconds.

Information required to:

- 1) Conclusively determine whether or not the 15 second start requirement supports the assumptions of the design basis LOCA analysis.
- 2) Conclusively validate the 15 second time requirement for achieving required voltage and frequency from the information provided in Chapter 15.

16-22

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.12 and associated Bases.

EPR SR 3.8.1.12 omits NOTE 2 in WOG SR 3.8.1.12 which addresses Mode Restrictions associated with performance of the surveillance. EPR Bases also omits the Mode Restriction discussion which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.9 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in the Bases of WOG SR 3.8.1.9 when justifying omission of the Mode Restriction information from EPR SR 3.8.1.12.

16-23

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.13 and associated Bases.

EPR SR 3.8.1.13 omits the NOTE in WOG SR 3.8.1.13 which addresses Mode restrictions associated with performance of the surveillance. EPR Bases also omits the discussion which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.13 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in justifying omission of the Mode Restriction information.

16-24

Tech Spec 3.8.1 AC Sources - Operating

Explain the EPR uses of EDG Automatic Trips.

The EPR SR 3.8.1.13 Bases list of "Critical Protective Trips" that are NOT automatically bypassed, differs from the corresponding list in the WOG Bases (items d & e). Additionally, the WOG Bases specifically lists the "High Jacket Water Temperature Trip" as a Noncritical Automatic Trip which conflicts with the EPR classification.

Information required in order to validate the accuracy of the automatic trip information contained in EPR Bases Section SR 3.8.1.1.3.

16-25

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.14 and associated Bases.

EPR SR 3.8.1.14 omits NOTE 2 in WOG SR 3.8.1.14 which addresses Mode restrictions associated with performance of the surveillance. EPR Bases also omits the discussion which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.9 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in the Bases of WOG SR 3.8.1.9 when justifying omission of the Mode Restriction information from EPR SR 3.8.1.14.

16-26

Tech Spec 3.8.1 AC Sources - Operating

Justify omission of Mode Restriction information from EPR Surveillance Requirement 3.8.1.9 and associated Bases.

EPR SR 3.8.1.9 omits bracketed NOTE 1 in WOG SR 3.8.1.9 which addresses Mode restrictions associated with performance of the surveillance. EPR Bases also omits the discussion which is included as part of the corresponding WOG Bases.

Reviewer's NOTE in the WOG SR 3.8.1.9 Bases states that the Mode Restrictions may be deleted if it can be demonstrated to the staff, on a plant specific basis, that performing the SR with the reactor in any of the Restricted Modes can satisfy a specific set of criteria.

Explanation required based on the fact that the omitted information appears to be both relevant and applicable to EPR. Explanation to address the specifics of the Reviewer's NOTE in justifying omission of the Mode Restriction information.

16-27

Tech Spec 3.8.10 Distribution Systems - Shutdown

Explain omission of the verbiage "Engineered Safety Features Systems" from the EPR Bases "APPLICABLE SAFETY ANALYSES" section.

Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states:

"The initial conditions of postulated accidents and anticipated operational occurrences in FSAR Chapter 6 and FSAR Chapter 15 assume the Protection System (PS) is OPERABLE.

Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria, states: "Plant systems such as the protection system (PS) and engineered safety features (ESF) are designed to mitigate the consequences of postulated upset conditions (transients and accidents)."

The Protection System is an integrated digital reactor protection system and ESF actuation system. The Protection System detects plant conditions that indicate the occurrence of AOOs and postulated accidents, and it actuates the safety-related process systems required to mitigate the event. The actual ESF systems are separate from the ESF actuation function performed by the Protection System. Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section should reference both the Protection System and the Engineered Safety Features System.

Explanation required in order to ensure the technical accuracy of the Bases and uniformity with the statement from Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria.

16-28

### Tech Spec 3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

Clarify diesel lube oil inventory requirements. Revise below referenced EPR Bases and FSAR sections as required to ensure alignment.

Conflicting information and inconsistencies exist within the EPR STS Bases as well as between the Bases and the FSAR relative to the lube oil inventory requirement. Values for 3.5 days and 7 days of continuous operation are both referenced. Specific examples include:

EPR STS "BACKGROUND" Bases section states: "Each engine oil sump contains an inventory capable of supporting a minimum of 3.5 days of operation. The onsite storage in addition to the engine oil sump is sufficient to ensure 7 days of continuous operation."

EPR STS "LCO" Bases states: "Additionally, a sufficient lubricating oil supply must be available to ensure the capability to operate at full load for 3.5 days. This requirement, in conjunction with an ability to obtain replacement supplies within 3.5 days, supports the availability of EDGs required to shut down the reactor and to maintain it in a safe condition for an AOO or a postulated accident with loss of offsite power."

EPR STS Bases B.1 states: "With lube oil inventory <750 gallons, sufficient lubricating oil to support 7 days of continuous EDG operation at full load conditions may not be available."

EPR STS SR 3.8.3.2 Bases states: "This Surveillance ensures that sufficient lube oil inventory is available to support at least 7 days of full load operation for each EDG. The 750 gallon requirement ... when the EDG lube oil sump does not hold adequate inventory for 7 days of full load operation without the level reaching the manufacturer recommended minimum level."

EPR FSAR Section 9.5.7.1 states: "The DGLS is designed to provide adequate lubrication and cooling for the various moving parts of the engine to permit it to be operated at continuous nameplate rating for a minimum of seven days without replenishing the system."

EPR FSAR Section 9.5.7.2.2 under "Auxiliary Lube Oil Tank" states: "The non-safety-related auxiliary tank is located in the diesel room and contains an oil volume for oil consumption makeup during a seven day period of engine operation."

EPR FSAR Section 9.5.7.4 states: "The DGLS components ... to permit operation at nameplate continuous rating for a minimum of seven days without oil replenishment from external sources."

Clarification required in order to resolve conflicting information and inconsistencies associated with EPR lube oil inventory requirements.

16-29

### Tech Spec 3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

Clarify stored diesel fuel oil inventory requirements. Revise below referenced EPR Bases and FSAR sections as required to ensure alignment.

Conflicting information and inconsistencies exist between the EPR STS Bases and the EPR FSAR relative to stored diesel fuel oil storage requirements. EPR STS Bases specifies a storage capacity of 3.5 days of full load operation while the FSAR specifies 7 days. Specific examples include:

EPR STS "BACKGROUND" Bases section states: "Each emergency diesel generator (EDG) is provided with a storage tank having a fuel oil capacity sufficient to operate that diesel for a period of 3.5 days while the EDG is supplying maximum post loss of coolant accident load demand discussed in FSAR Section 9.5.4.2."

EPR STS "LCO" Bases states: "Stored diesel fuel oil is required to have sufficient supply for 3.5 days of full load operation."

EPR STS Bases A.1 states: "In this Condition, the 3.5 day fuel oil supply for an EDG is not available. However, the Condition is restricted to fuel oil level reductions that maintain at least a 3 day supply."

EPR STS SR 3.8.3.1 Bases states: "This SR provides verification that there is an adequate inventory of fuel oil in the storage tanks to support each EDG's operation for 3.5 days at full load. The 3.5 day period is sufficient time to place the unit in a safe shutdown condition and to bring in replenishment fuel from an onsite or offsite location."

EPR FSAR Section 9.5.4 states: "The diesel generator fuel oil storage and transfer system (DGFOSTS) provides for the required storage capacity and transfer of fuel oil to each diesel engine as required for seven days of operation."

EPR FSAR Section 9.5.4.1 states: "Following a LOOP, the system provides onsite storage and delivery of fuel oil for at least seven days of diesel generator operation at the continuous rating."

EPR FSAR Section 9.5.4.2.1 states: "This allows for a 3.5 day fuel oil storage inventory in each fuel oil storage tank (plus 10 percent for surveillance testing) and still maintains a seven day fuel supply to the minimum required number of EDGs."

EPR FSAR Section 9.5.4.2.2 states: "the capacity of each tank is based on the fuel consumption by one diesel engine for operation at the continuous rating for seven day, plus an additional ten percent for surveillance testing."

Clarification required in order to resolve conflicting information and inconsistencies associated with EPR fuel oil inventory requirements.

16-30

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

Justify the 92-day Surveillance Requirement Frequency for EPR GTS SR 3.8.3.5. Provide rationale for why it is acceptable to remove water accumulation from the fuel oil storage tanks quarterly as opposed to monthly in EPR GTS SR 3.8.3.5 Bases.

EPR GTS SR 3.8.3.5 specifies a Frequency of 92 days. WOG STS SR 3.8.3.5 specifies a 31-day Frequency. Both the EPR and WOG Bases state:

"Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel storage tanks eliminates the necessary environment for bacterial survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, and contaminated fuel oil, and from breakdown of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequencies are established by Regulatory Guide 1.137. This SR is for preventive maintenance. The presence of water does not necessarily represent failure of this SR, provided the accumulated water is removed during performance of the surveillance."

Reg Guide 1.137, Fuel-Oil Systems For Standby Diesel Generators, states: "Accumulated condensate should be removed from storage tanks on a quarterly basis or on a monthly basis when it is suspected or known that the groundwater table is equal to or higher than the bottom of buried storage tanks."

Information required in order to justify why it is permissible to extend the surveillance frequency from monthly to quarterly, when the basis for the extension depends upon the relationship between the groundwater table and the bottom of buried storage tanks. The required information is site-specific. No justification provided in the EPR GTS Bases for extending the Frequency from 31 to 92 days.

16-31

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

Evaluate the range of values specified for diesel fuel oil storage tank level in EPR STS LCO Condition "A". Specify a level range supported by Reg Guide 1.137.

EPR STS LCO Condition "A" fuel oil storage tank values appear to support a 3.5 day fuel oil supply. Regulatory Position "1.c" of Reg Guide 1.137 (Fuel-Oil Systems For Standby Diesel Generators) states that the calculation of fuel oil storage requirements are "based on the assumption that the diesel generator operates continuously for 7 days at its rated capacity." EPR STS Bases A.1

references 3.5 days as well. Corresponding WOG STS and associated Bases both specify a 7-day fuel oil supply.

Information required in order to ensure that the diesels have sufficient fuel oil storage capacity to ensure the availability of necessary power to ESF systems so that fuel, Reactor Coolant System, and containment design limits are not exceeded.

16-32

Tech Spec 3.8.5 DC Sources - Shutdown

Explain omission of qualifying verbiage in Condition B of EPR GTS 3.8.5.

The statement "for reasons other than Condition A OR Required Actions and associated Completion Time of Condition A not met" is bracketed text in the WOG STS. This qualifying verbiage appears to be applicable based on guidance in the WOG STS REVIEWER'S NOTE that states: "The first option above is adopted for plants that have a CTS requiring the same level of DC electrical power subsystem support as is required for power operating conditions."

Explanation required in order to remove potential ambiguity from between entry conditions and also to provide directional guidance in the event that Condition "A" Required Action Completion Times are exceeded.

16-33

Tech Spec 3.8.5 DC Sources - Shutdown

Explain the position in the EPR Bases "LCO" section that Two DC subsystems are required to be Operable to support Two divisions of the Distribution systems required Operable by LCO 3.8.10 "Distribution Systems - Shutdown."

LCO 3.8.10 (Distribution Systems - Shutdown) states:

"The necessary portions of the AC, DC, and AC vital electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE." There is no specific requirement within LCO 3.8.10 for the Operability of Two divisions as stated in EPR Bases LCO section of 3.8.5.

Additionally, there is no reference within the actual text of LCO 3.8.5 itself that specifies Two DC subsystems. LCO 3.8.5 (DC Sources - Shutdown) states:

"Class 1E DC subsystem(s) shall be OPERABLE to support the DC electrical power distribution subsystem(s) required by LCO 3.8.10, "Distribution Systems - Shutdown."

Explanation required in order to ensure the technical accuracy of the Base and to clarify what the minimum DC subsystem Operability requirements are for Shutdown conditions.

16-34

Tech Spec 3.8.5 DC Sources - Shutdown

List the Surveillance Requirements of Specification 3.8.4, DC Sources - OPERABLE, in EPR SR 3.8.5.1.

The list of Surveillance Requirements associated with Specification 3.8.4, DC Sources - OPERABLE, have been omitted from EPR SR 3.8.5.1. Surveillance requirements 3.8.4.1, 3.8.4.2, and 3.8.4.3 are applicable to EPR SR 3.8.5.1 and need to be listed.

16-35

Tech Spec 3.8.6 Battery Parameters

Explain how the initial assumptions of the accident analyses support the position in the EPR Bases "APPLICABLE SAFETY ANALYSES" section, that "at least two divisions of DC sources are required to be OPERABLE during accident conditions."

Paragraph 2 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states:

"The OPERABILITY of the DC subsystems is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit. This includes maintaining at least two divisions of DC sources OPERABLE during accident conditions".

LCO 3.8.10 (Distribution Systems - Shutdown) states:

"The necessary portions of the AC, DC, and AC vital electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE." There is no specific requirement within LCO 3.8.10 or its Bases for the Operability of at least Two Divisions of DC sources.

Additionally, there is no reference within the actual text of LCO 3.8.5 itself that specifies Two DC subsystems. LCO 3.8.5 (DC Sources - Shutdown) states: "Class 1E DC subsystem(s) shall be OPERABLE to support the DC electrical power distribution subsystem(s) required by LCO 3.8.10, "Distribution Systems - Shutdown."

Explanation required in order to ensure the technical accuracy of the Bases.

16-36

Tech Spec 3.8.6 Battery Parameters

Explain omission of the verbiage "Engineered Safety Features Systems" from the EPR Bases "APPLICABLE SAFETY ANALYSES" section.

Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states:

"The initial conditions of postulated accidents and anticipated operational

occurrences in FSAR Chapter 6 and FSAR Chapter 15 assume the Protection System (PS) is OPERABLE.

Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria, states: "Plant systems such as the protection system (PS) and engineered safety features (ESF) are designed to mitigate the consequences of postulated upset conditions (transients and accidents)."

The Protection System is an integrated digital reactor protection system and ESF actuation system. The Protection System detects plant conditions that indicate the occurrence of AOOs and postulated accidents, and it actuates the safety-related process systems required to mitigate the event. The actual ESF systems are separate from the ESF actuation function performed by the Protection System. Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section should reference both the Protection System and the Engineered Safety Features System.

Explanation required in order to ensure the technical accuracy of the Bases and establish uniformity with the statement from Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria.

16-37

Tech Spec 3.8.6 Battery Parameters

Correct cell voltage value specified in paragraph 2 of the EPR Bases "BACKGROUND" section.

Paragraph 2 of the EPR Bases "BACKGROUND" section specifies a cell voltage of 2.065 volts per cell (Vpc) for a 120 cell battery with an open circuit voltage of approximately 250 volts. Calculated cell voltage should be 2.083 Vpc.

Correction required in order to ensure the technical accuracy of the Bases.

16-38

Tech Spec 3.8.7 Inverters - Operating

Explain omission of information from EPR LCO and Bases section associated with removal of an inverter from service during a battery equalizing charge.

WOG STS 3.8.7 "LCO" NOTE and accompanying Bases information associated with "disconnecting an inverter from its DC bus during performance of a battery equalizing charge," has been omitted from the EPR STS 3.8.7 LCO and Bases section. WOG LCO Bases states: If the inverters were not disconnected, the resulting voltage condition might damage the inverter. These provisions minimize the loss of equipment that would occur in the event of a loss of offsite power.

Explanation required in order to understand why information associated with the potential for inverter damage during a battery equalizing charge would be excluded from EPR Tech Specs.

16-39

Tech Spec 3.8.7 Inverters - Operating

Explain omission of the verbiage "Engineered Safety Features Systems" from the EPR Bases "APPLICABLE SAFETY ANALYSES" section.

Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states: "The initial conditions of postulated accidents and anticipated operational occurrences in FSAR Chapter 6 and FSAR Chapter 15 assume the Protection System (PS) is OPERABLE.

Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria, states: "Plant systems such as the protection system (PS) and engineered safety features (ESF) are designed to mitigate the consequences of postulated upset conditions (transients and accidents)."

The Protection System is an integrated digital reactor protection system and ESF actuation system. The Protection System detects plant conditions that indicate the occurrence of AOOs and postulated accidents, and it actuates the safety-related process systems required to mitigate the event. The actual ESF systems are separate from the ESF actuation function performed by the Protection System. Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section should reference both the Protection System and the Engineered Safety Features System.

Explanation required in order to ensure the technical accuracy of the Bases and uniformity with the statement from Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria.

16-40

Tech Spec 3.8.8 Inverters - Shutdown

Explain the reference to "two divisions" in the first sentence of the EPR GTS 3.8.8 Bases "ACTIONS" section "A" that states "If two divisions are required by LCO 3.8.10, Distribution Systems - Shutdown ..."

EPR LCO 3.8.10 (Distribution Systems - Shutdown) states:  
"The necessary portions of the AC, DC, and AC vital electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE."

There is no specific requirement within LCO 3.8.10 for the Operability of two divisions as stated in EPR Bases "ACTIONS" section "A" of 3.8.8.

Additionally, there is no reference within the actual text of LCO 3.8.8 itself that specifies Two Divisions of Inverters. LCO 3.8.8 (Inverters - Shutdown) states:

"Inverters shall be OPERABLE to support the onsite Class 1E AC vital bus electrical power distribution subsystem(s) required by LCO 3.8.10, "Distribution Systems - Shutdown."

Explanation required in order to ensure the technical accuracy of the Base and to clarify what the minimum Inverter Operability requirements are for Shutdown conditions.

16-41

Tech Spec 3.8.8 Inverters - Shutdown

Revise statement in paragraph #4 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section to insert the word "postulated" so that it reads "many postulated accidents" instead of "many accidents."

Use of the word "postulated" in this application maintains the consistency previously established throughout the entire Section 3.8 Bases of the EPR. The phrase "Postulated Accidents" in the EPR Bases correlates to the acronym "DBA."

16-42

Tech Spec 3.8.8 Inverters - Shutdown

Explain omission of the verbiage "Engineered Safety Features Systems" from the EPR Bases "APPLICABLE SAFETY ANALYSES" section.

Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states: "The initial conditions of postulated accidents and anticipated operational occurrences in FSAR Chapter 6 and FSAR Chapter 15 assume the Protection System (PS) is OPERABLE.

Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria, states:

"Plant systems such as the protection system (PS) and engineered safety features (ESF) are designed to mitigate the consequences of postulated upset conditions (transients and accidents)."

The Protection System is an integrated digital reactor protection system and ESF actuation system. The Protection System detects plant conditions that indicate the occurrence of AOOs and postulated accidents, and it actuates the safety-related process systems required to mitigate the event. The actual ESF systems are separate from the ESF actuation function performed by the Protection System. Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section should reference both the Protection System and the Engineered Safety Features System.

Explanation required in order to ensure the technical accuracy of the Bases and uniformity with the statement from Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria.

16-43

Tech Spec 3.8.9 Distribution Systems - Operating

Explain omission of the verbiage "Engineered Safety Features Systems" from the EPR Bases "APPLICABLE SAFETY ANALYSES" section.

Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section states: "The initial conditions of postulated accidents and anticipated operational occurrences in FSAR Chapter 6 and FSAR Chapter 15 assume the Protection System (PS) is OPERABLE.

Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria, states: "Plant systems such as the protection system (PS) and engineered safety features (ESF) are designed to mitigate the consequences of postulated upset conditions (transients and accidents)."

The Protection System is an integrated digital reactor protection system and ESF actuation system. The Protection System detects plant conditions that indicate the occurrence of AOOs and postulated accidents, and it actuates the safety-related process systems required to mitigate the event. The actual ESF systems are separate from the ESF actuation function performed by the Protection System. Paragraph 1 of the EPR Bases "APPLICABLE SAFETY ANALYSES" section should reference both the Protection System and the Engineered Safety Features System.

Explanation required in order to ensure the technical accuracy of the Bases and uniformity with the statement from Section 15.0.0.2 (EPR Chapter 15), Accident Analysis Acceptance Criteria.

16-44

Tech Spec 3.8.9 Distribution Systems - Operating

Revise verbiage in EPR Bases "ACTIONS" section B.1 from "inverter using internal AC source" to "inverter using an AC source."

EPR 3.8.9 Bases "ACTIONS" section B.1 states: "The required AC vital bus must be restored to OPERABLE status within two hours by powering the bus from the associated inverter via inverted DC, inverter using internal AC source, or Class 1E voltage regulated bus."

EPR inverters do not use an internal AC source but instead utilize a static bypass switch to transfer power from the inverter to an EDG backed bypass source. This is accurately reflected in Paragraph #3 of the EPR Bases "LCO" section which uses the phrase "inverter using an AC source" in a similar statement associated with vital bus Operability.

Revision required in order to ensure verbiage contained in EPR Bases "ACTIONS" section B.1 is technically correct with respect to inverter specifics.

16-45

Tech Spec 3.8.2 AC Sources - Shutdown

Explain the 15 second diesel sequence time requirement for the EPR.

EPR GTS LCO 3.8.2 Bases states that the EDG must be capable of starting, accelerating to rated speed and voltage, and connecting to its respective ESF bus on detection of bus undervoltage within 15 seconds.

Chapter 15 Table 15.0-8, Engineered Safety Features Functions Used in the Accident Analysis (Sheet 1 of 3), does not unequivocally specify the 15 second time requirement. The time delays listed in Table 15.0-8 for SIS Actuation Functions are 40 seconds for SIS delivery concurrent with a LOOP. EDG loading time is included in the 40 seconds.

Information required to:

- 1) Conclusively determine whether or not the 15 second start requirement supports the assumptions of the design basis LOCA analysis.
- 2) Conclusively validate the 15 second time requirement for achieving required voltage and frequency from the information provided in Chapter 15.

16-46

Tech Spec 3.8.2 AC Sources - Shutdown

Explain why the two Operable EDGs are required to reside within the same divisional pair as opposed to one Operable EDG residing in each of two separate divisional pairs.

EPR STS LCO 3.8.2.b specifies that two emergency diesel generators (EDGs) in one divisional pair capable of supplying the onsite Class 1E power distribution subsystem(s) required by LCO 3.8.10 shall be Operable. Associated LCO Bases merely states: "to ensure a diverse power source is available to provide electrical power support, assuming a loss of the offsite circuit." Bases does not address the inability of two emergency diesels in separate divisional pairs to supply the necessary electrical power for the various combinations of subsystems, equipment, and components required Operable by LCO 3.8.10.

Information required in order to determine why two emergency diesels in separate divisional pairs would not be capable of supplying the onsite Class 1E power distribution subsystem(s) required by LCO 3.8.10.

16-47

Tech Spec 3.8.2 AC Sources - Shutdown

Correct surveillance requirement reference in EPR SR 3.8.2.1 Bases.

EPR SR 3.8.2.1 Bases incorrectly references SR 3.8.1.20 in the first paragraph. SR 3.8.1.20 does not exist in the EPR STS. SR 3.8.2.1 correctly references SR 3.8.1.19.

Change required to ensure technical accuracy of SR 3.8.2.1 Bases.

16-48

Tech Spec 3.8.2 AC Sources - Shutdown

Evaluate the need to reference an additional Surveillance Requirement in the NOTE associated with EPR SR 3.8.2.1.

The Automatic Load Sequencer was omitted from LCO 3.8.1, AC Sources - Operating. An RAI was submitted under Tech Spec 3.8.1 to evaluate and justify omission of the Load Sequencer. A subsequent RAI was submitted under LCO 3.8.1 requesting an explanation for the omission of the surveillance requirement for verifying the interval between each sequenced load block (for the Load Sequencer function) from the EPR SRs. It will be necessary to include a reference to the surveillance requirement for "verifying the interval between each sequenced load block" in the NOTE associated with EPR SR 3.8.2.1, if the Automatic Load Sequencer becomes part of the EPR Tech Specs.

RAI submitted to ensure that the NOTE associated with SR 3.8.2.1 references all applicable surveillance requirements.

16-49

Tech Spec 3.8.2 AC Sources - Shutdown

Justify omission of automatic load sequencing statements from EPR GTS LCO Bases.

EPR GTS 3.8.2 LCO Bases section omits the following WOG STS LCO Bases statements associated with automatic load sequencing:

"Proper sequencing of loads, including tripping of nonessential loads, is a required function for DG OPERABILITY.

"In addition, proper sequencer operation is an integral part of offsite circuit OPERABILITY since its inoperability impacts on the ability to start and maintain energized loads required OPERABLE by LCO 3.8.10."

Information required in order to fully understand the automatic load sequencing function as it relates to EDG operability, Offsite Circuit OPERABILITY, and the Protection System. Although the auto load sequencing function is actually performed by the Protection System, there are no surveillance requirements in TS 3.3.1 to verify operability of the load sequencer. The load sequencing function is apparently verified under SR 3.8.1.11. If the load sequencer failed, the associated EDG would be rendered inoperable due to inability to successfully complete the SR, and offsite circuit OPERABILITY could be adversely affected.

The fact that operability of the load sequencing function is neither included in or surveilled under Protection System LCO 3.3.1, as well as being excluded from AC Sources - Operating LCO 3.8.1, requires justification in order to clearly understand the operability issues as they relate to both LCOs and the reason for omission of the automatic load sequencing statements from EPR STS 3.8.2 LCO Bases.

16-50

Tech Spec 3.8.4 DC Sources - Operating

Correct the cell voltage value specified in paragraph 10 of the EPR Bases.

Paragraph 10 of the EPR STS 3.8.4 BACKGROUND Bases specifies a cell voltage of 2.065 volts per cell (Vpc) for a 120 cell battery with an open circuit voltage of approximately 250 volts. Calculated cell voltage should be 2.083 Vpc.

Correction required in order to ensure the technical accuracy of the Bases.

16-51

Tech Spec 3.8.9 Distribution Systems - Operating

Enhance EPR Bases "LCO" Section 3.8.9 discussion to describe how redundant electrical power distribution subsystem equipment within a divisional pair is considered Operable and capable of performing its safety-related functions when Alternate Feed Cross Tie Breakers are closed.

Paragraph #4 of the EPR Bases "LCO" Section 3.8.9 states: "The alternate feed is interlocked to prevent sources from two divisions supplying a bus at the same time. In addition, interlocks prevent inadvertently paralleling two EDGs together. This prevents any electrical malfunction in any power distribution subsystem from propagating to the redundant subsystem, that could cause the failure of a redundant subsystem and a loss of essential safety function(s).

This statement is not completely supported by the following excerpts from Chapter 8 of the EPR FSAR.

EPR FSAR Tier 2 section 8.3.1.1.9, Independence of Redundant Systems (pg 8.3-20) states:

"The occurrence of an internal hazard will not result in a common mode failure of the redundant equipment except during alternate feed."

EPR FSAR Tier 2 section 8.3.1.2.4, Compliance with GDC 17 (pg 8.3-26) states:

"Alternate feed protection and coordination prevents a fault on one division from degrading the other division below an acceptable level."

EPR FSAR Tier 2 section 8.3.1.1.3, Electric Circuit Protection and Coordination (pg 8.3-7) states: "The inter-divisional alternate feeds have a protection and coordination scheme to provide protection so that a fault on one division does not degrade the other division below an acceptable level. The alternate feed circuit protection scheme uses circuit breakers so that a malfunction of the components

being alternately fed does not result in unacceptable influences in the division that supplies the power."

Ability of redundant equipment within divisional pairs to maintain safety-related functional capabilities when Alternate Power Feed Cross Tie Breakers are closed is questionable considering select verbiage from Chapter 8 of the EPR FSAR such as: "except during alternate feed"; "below an acceptable level," and "does not result in unacceptable influences."

16-52

Tech Spec 0.0 General Comment

Revise all EPR application references from "U.S. EPR standard Technical Specification or STS" to "U.S. EPR generic Technical Specifications or GTS."

10CFR 50.36 Technical Specifications, states that each applicant for a design certification under part 52 shall include in its application, proposed Generic Technical Specifications - not standard Technical Specifications. Standard Technical Specifications are developed and issued by the NRC as a guide for the development of generic or plant-specific Technical Specifications by applicants.

16-53

Tech Spec 3.8.1 AC Sources - Operating

Enhance 3.8.1 Bases B.5 discussion associated with the 120-day EDG Completion Time.

Condition B.5 of the EPR STS specifies a 120-day Completion Time for restoration of a single inoperable Diesel. Associated EPR Bases justifies this duration as reasonable by crediting the alignment of alternate feed and the fact that operation of the Diesel is not assumed in the safety analysis to mitigate the consequences of a postulated accident or AOO.

AC Sources Operating Bases B.5 discussion requires additional detail/enhancement with regard to the safety analysis specifics, key assumptions, and risk insights.