UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 2 of the San Onofre Nuclear Generating Station	)	Docket No. 50-361
	)	Amendment Application No. 168

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 168.

This amendment application consists of Proposed Change Number (PCN)-478 to Facility Operating License No. NPF-10. PCN-478 is a request to revise Technical Specification (TS) 3.8.1, "AC Sources - Operating" and applicable Bases.

The proposed change will more clearly reflect safety analysis and testing conditions.

Subscribed on this 18th day of June, 1997

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

By: Dwight E. Nunn

Dwight E. Nunn
Vice President

State of California
County of Orange
On 6/18/97 before me, Mariane Sanchez,
personally appeared Dwight E. Nunn, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mariane Sanchez

MARIANE SANCHEZ
COMM. # 1038763
Notary Public -- California
ORANGE COUNTY
My Comm. Expires OCT 14, 1998

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 3 of the San Onofre Nuclear Generating Station	)	Docket No. 50-362 Amendment Application No. 154

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 154.

This amendment application consists of Proposed Change Number (PCN)-478 to Facility Operating License No. NPF-15. PCN-478 is a request to revise Technical Specification (TS) 3.8.1, "AC Sources - Operating" and applicable Bases. The proposed change will more clearly reflect safety analysis and testing conditions.

Subscribed on this 18th day of June, 1997

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

By: Dwight E. Nunn

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On 6/18/97 before me, Mariane Sanchez,
personally appeared Dwight E. Nunn, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mariane Sanchez

MARIANE SANCHEZ
COMM. # 1033763
Notary Public — California
ORANGE COUNTY
My Comm. Expires OCT 14, 1998

DESCRIPTION AND SAFETY ANALYSIS OF PROPOSED CHANGE NPF-10/15-478

This is a request for a Technical Specification (TS) change to revise TS 3.8.1, "AC Sources - Operating," Surveillance Requirement (SRs) 3.8.1.1 (Unit 3 only), 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.19, and 3.8.1.20 and applicable Bases for SONGS Units 2 and 3.

Existing SONGS Specifications and Bases:

Unit 2: See Attachment "A"
Unit 3: See Attachment "B"

Proposed SONGS Specification and Bases:

Unit 2: See Attachment "C"
Unit 3: See Attachment "D"

Description of Change

Summary

The proposed change is requested to revise elements of the diesel generator surveillances to more clearly reflect safety analysis and testing conditions as it is performed. This change is needed due to an ongoing effort to re-review the Surveillance Requirements (SRs) following their revision as part of NRC Amendment Nos. 127 and 116, for SONGS Units 2 and 3. NRC Amendment Nos. 127 and 116 approved changes to the SONGS Units 2 and 3 Technical Specifications that adopted the recommendations of NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants," submitted as part of Proposed Technical Specification Change Number 299 (PCN-299) with exceptions as noted and discussed. This was performed as part of the San Onofre participation as the lead plant for the Combustion Engineering Owners Group (CEOG) in the Technical Specification Improvement Program (TSIP).

The proposed change will revise TS 3.8.1, SRs 3.8.1.1 (Unit 3 only), 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.19, and 3.8.1.20.

Discussion

Through PCN-299, changes to the SONGS Units 2 and 3 Technical Specifications were proposed that adopted the recommendations of NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants." These changes included incorporating the revised format of the NUREG, including allowances granted by NUREG-1432, plant specific differences, and to a limited degree, changes to reflect plant specific enhancements. Mainly, the SONGS Units 2 and 3 Technical Specifications were directly transcribed in PCN-299. NRC Amendment Nos. 127 and 116, dated February 9, 1996, approved the changes proposed through PCN-299. This included modifications to TS, the test conditions of SRs 3.8.1.1 (Unit 3 only), 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11,

Surveillance Requirements

The proposed change revises specific Surveillance Requirements (See Attachments C and D) as follows:

1. SR 3.8.1.1 is revised to indicate corrected, Unit 2 cross-tie breaker numbers. The change is applicable to Unit 3 only. These numbers were inadvertently revised in PCN-299 and NRC Amendment 116.

2. SR 3.8.1.2 is revised to provide the correct voltage and frequency limits for DG Operability. The lower voltage limit is changed to 4297 V. This is the voltage that the DG must achieve to reset the 4.16 kV ESF bus undervoltage relays to allow ESF load sequencing to proceed. Undervoltage relay reset is a permissive that must be satisfied to initiate the ESF load sequence timers when an ESF actuation signal is present.

   The upper voltage limit is changed to 4576 V to be consistent with the maximum allowable steady state voltage for 4.16 kV motors (110% of 4160 V).

   The lower frequency limit is changed from 58.8 Hz to 59.7 Hz. The lower frequency limit is equal to - 0.5% of the 60 Hz nominal frequency and is based on maintaining acceptable high pressure safety injection system performance as assumed in the accident analyses.

   The acceptance criteria are reformatted. The steady state voltage limits and steady state frequency limits are now referred to as acceptance criteria a and b, respectively.

   In note 3, the term "synchronous" is revised to "rated" (editorial preference).

3. SR 3.8.1.7 is revised to provide the correct voltage and frequency limits for DG Operability. These changes are discussed in SR 3.8.1.2 above.

   The timing requirement for the voltage and frequency limits is changed from 10 seconds to 9.4 seconds. The 9.4 second requirement ensures that the DG meets the assumptions of the design basis LOCA analysis, which assumes that the DG starts, accelerates to the required frequency and voltage, connects to the 4.16 kV ESF bus, and resets the ESF bus undervoltage relay logic within 10 seconds of a Safety Injection Actuation Signal (SIAS). Since this surveillance test starts the DG but does not close the DG output breaker, the time requirement is reduced by 0.6 seconds (from 10 seconds to 9.4 seconds). This ensures that sufficient time exists to subsequently close the DG output breaker, and reset the undervoltage relay logic without out exceeding the overall 10 second start time assumed in the analysis.

   The acceptance criteria are reformatted. Acceptance criterion a shows the voltage and frequency limits for the timing requirement and the steady state voltage and frequency limits are now referred to as acceptance criteria b and c, respectively. Note 2 is added to credit any unplanned events that may satisfy this SR.

4. SR 3.8.1.10 is revised to clarify the conditions under which the DG full load rejection test is performed.

The term "connected to its bus in parallel with offsite power" is added to indicate that the test is performed with the DG connected in parallel to the grid.

The reference to "design basis kW loading" is removed because the required kW load range is specified within the SR as ≥ 4450 kW and ≤ 4700 kW. Given the specified limits, the reference to design basis kW loading is not required and is removed.

The phrase "maximum kVAR loading permitted during testing" is revised to clarify that the kVAR load on the DG during this test may be limited by offsite power conditions. Offsite power conditions directly affect the voltage on the ESF buses. When the DG is connected to the ESF bus in parallel with the offsite source, increasing the DG output voltage increases the DG kVAR output. If bus voltage is already high due to high grid voltage, increasing the DG kVAR output may cause the bus voltage to exceed allowable limits. Similarly, these test conditions could cause an overexcitation condition to occur in the generator or exciter. The test procedure recognizes these limitations and contains restrictions to prevent equipment limits from being exceeded. This allows the test to be performed with a kVAR load as close to the post-accident kVAR load as possible, subject to these restrictions. The portion of the SR that refers to these limitations is clarified to indicate that the test is performed under inductive load conditions that are as close to design basis conditions as possible, subject to offsite power conditions.

The acceptance criteria are reformatted. The "does not trip" requirement is now referred to as acceptance criterion a, and the maximum voltage limit is now referred to as acceptance criterion b.

5. SR 3.8.1.11 is revised to clarify that, in addition to the DG connecting to the ESF bus and energizing the permanently connected loads, DG voltage must also be high enough to reset the 4.16 kV bus undervoltage relay logic within 10 seconds. This ensures that the DG meets the assumptions of the design basis LOCA analysis, which assumes that the DG starts, accelerates to the required frequency and voltage, connects to the 4.16 kV ESF bus, and resets the ESF bus undervoltage relay logic within 10 seconds of a SIAS. Undervoltage relay logic reset is a permissive that must be satisfied to initiate the ESF load sequence timers when a SIAS is present.

Acceptance criteria c.2 and c.3 are also revised to provide the correct voltage and frequency limits for steady state operation. These changes are discussed in SR 3.8.1.2 above.

6. SR 3.8.1.12 is revised to clarify that the ESF actuation signal that initiates a DG start is a SIAS. This change eliminates the ambiguity that exists in the existing SR by referring to a specific signal (SIAS) rather than a general term (ESF actuation signal).

   The timing requirement for achieving the required DG voltage and frequency is changed from 10 seconds to 9.4 seconds. This change is discussed in SR 3.8.1.7 above.

   Acceptance criterion a shows the voltage and frequency limits for the timing requirement and the steady state voltage and frequency limits are now referred to as criteria b and c, respectively.

7. SR 3.8.1.13 is revised to eliminate reference to the "loss of voltage signal" (LOVS). This change will allow the non-critical trip feature to be tested under SIAS-only conditions. The DG non-critical trips are bypassed by a SIAS signal, but are not affected by the presence or absence of a LOVS. Under postulated SIAS-LOVS conditions, the DG starts and connects to the 4.16 kV ESF bus. The ESF bus voltage will increase to and remain above the reset voltage of the LOVS relays. The LOVS relays will reset. The non-critical trips will remain bypassed due to the SIAS. Since a LOVS has no affect on the bypassing of the non-critical trips, and under postulated LOVS-SIAS conditions the LOVS clears within 10 seconds, testing the non-critical trips under SIAS-only conditions provides a valid test of the non-critical trip bypass feature.

   This SR is also revised to clarify that the ESF actuation signal that bypasses the non-critical trips is a SIAS. This change eliminates the ambiguity that exists in the existing SR by referring to a specific signal (SIAS) rather than a general term (ESF actuation signal).

   These changes are consistent with Regulatory Guide 1.9, Revision 3, which refers only to SIAS and not to LOVS with regard to the protective trip bypass test.

8. In SR 3.8.1.14, the phrase "maximum kVAR loading permitted during testing" is revised to clarify that the kVAR load on the DG during this test may be limited by offsite power conditions. This change is discussed under SR 3.8.1.10 above.

   In Note 1, the reference to power factor is removed. The SR indicates kW requirements only and that kVAR's are determined by the offsite power conditions.

   For Unit 3, SR 3.8.1.14 is revised to Post-TSIP requirements. The associated note is no longer applicable and is deleted.

9. SR 3.8.1.15 is revised to provide the correct voltage and frequency limits for DG Operability. These changes are discussed in SR 3.8.1.2 above.

   The timing requirement for achieving the required DG voltage and frequency is changed from 10 seconds to 9.4 seconds. This change is discussed in SR 3.8.1.7 above.

The acceptance criteria are reformatted. Acceptance criterion a shows the voltage and frequency limits for the timing requirement and the steady state voltage and frequency limits are now referred to as acceptance criteria b and c, respectively. The requirement to operate for greater than or equal to 5 minutes is now referred to as acceptance criterion d.

In Note 1 the term "outside of load range..." is revised to "outside the load range..." This is an editorial change only.

For Unit 3, SR 3.8.1.15 is revised to Post-TSIP requirements. The associated note is no longer applicable and is deleted.

10. SR 3.8.1.16 is revised to indicate that the DG is manually synchronized with the offsite power source during this test.

In acceptance criterion c, the term "ready-to-load operation" is clarified to be consistent with the definition provided in the Bases for this SR. Steady state voltage and frequency limits are added as acceptance criteria c.1 and c.2. The requirement for the DG breaker to be open is added as acceptance criterion c.3.

11. SR 3.8.1.17 is revised to indicate that the test is performed with the DG connected in parallel to the grid.

Acceptance criterion a is revised to clarify the term "ready to load operation." This change is consistent with the definition provided in the Bases for this SR. Steady state voltage and frequency limits are added as acceptance criteria a.1 and a.2. The requirement for the DG breaker to be open is added as acceptance criterion a.3.

This SR is also revised to clarify that the ESF actuation signal that overrides the test mode is a SIAS. This change eliminates the ambiguity that exists in the existing SR by referring to a specific signal (SIAS) rather than a general term (ESF actuation signal).

12. SR 3.8.1.19 is revised to clarify that, in addition to the DG connecting to the ESF bus and energizing the permanently connected loads, DG voltage must also be high enough to reset the 4.16 kV bus undervoltage relay logic within 10 seconds. This ensures that the DG meets the assumptions of the design basis LOCA analyses, which assumes that the DG starts, accelerates to the required frequency and voltage, connects to the 4.16 kV ESF bus, and resets the ESF bus undervoltage relay logic within 10 seconds of a SIAS. Undervoltage relay logic reset is a permissive that must be satisfied to initiate the ESF load sequence timers when a SIAS is present.

Acceptance criteria c.3 and c.4 are also revised to provide the correct voltage and frequency limits for steady state operation. These changes are discussed in SR 3.8.1.2 above.

13. SR 3.8.1.20 changes the timing requirement for achieving the required DG voltage and frequency from 10 seconds to 9.4 seconds. This change is discussed in SR 3.8.1.7 above.

The acceptance criteria are reformatted. Acceptance criterion a shows the voltage and frequency limits for the timing requirement and the steady state voltage and frequency limits and now referred to as criteria b and c, respectively. These changes are discussed in SR 3.8.1.2 above.

Bases

Background

The proposed change adds a discussion to clarify the configuration of the second source of offsite power (alternate preferred power source). Because the required second source of offsite power depends upon the other unit's bus/transformer alignment, the second source of offsite power may also be derived from the other unit's Unit Auxiliary Transformer. This can occur during an outage on the other unit, when the offsite power may be backfed via the Main Transformer with the Main Generator isolated phase bus links removed. This configuration was previously explained for the same unit (first source of offsite power), but was not included for a unit cross-tie, where the other unit could be in the outage with the Engineered Safety Features (ESF) bus(es) aligned to its Unit Auxiliary Transformer. For this configuration, the non-operating unit's Unit Auxiliary Transformer serves as the source of the required second offsite power source for ESF bus(es) in the operating unit. Changes to the second and third paragraph describe this condition.

The term "tie" is replaced with "connect" to read: "After the DG has started, it will automatically connect to its respective bus..." The meaning is the same (editorial preference).

The term "nonpermanent" is replaced with "selected," which now reads as "...an undervoltage signal strips selected loads from the ESF bus." The term "selected" is consistent with the design of the SONGS load shed circuit.

Statements are added to clarify that the ESF bus permanently connected loads are energized when the DG breaker closes, and that sequencing of ESF loads will begin contingent upon the presence of one or more ESF actuation signals.

The paragraph shown deleted has been incorporated into the third paragraph on the previous page.

Limiting Condition for Operation (LCO) 3.8.1

The Bases for LCO 3.8.1 currently contains a statement defining "qualified offsite circuits" as being described in the Updated Final Safety Analysis Report (UFSAR). The proposed change adds a statement to define "required" offsite circuits as those that are "credited" and "required" to be operable per the LCO. The term "required" is added to clarify that the offsite circuit of interest is the circuit that is being credited to satisfy the LCO.

The statement "...maintaining rated frequency and voltage..." is changed to "...maintaining frequency and voltage within specified limits..." The term "rated" is not applicable to offsite circuits, which operate within conditions of the power grid.

Statements are added to clarify that the second source of offsite power (offsite circuit #2) can be from the companion unit's Unit Auxiliary Transformer (XU1), as previously discussed.

The words "when the main generator is not operating" are inserted to specify conditions under which the required second source of offsite power is derived from the other unit's Unit Auxiliary Transformer.

The term "link" is replaced with "links," since there are three (one per phase) in the main generator's isolated bus.

A clarification is added to explain that during certain conditions, the Unit Auxiliary Transformer (XU1) of the non-operating unit is credited as the second source of offsite power for the operating unit, as previously discussed.

The terms "rated speed and voltage" is replaced with "within specified frequency and voltage limits" to reflect that specific upper and lower values for these parameters are indicated in the surveillance requirements. It is further clarified that the required DG start and connection to ESF bus in the ≤10 seconds time frame includes the resetting of the bus undervoltage relay logic.

For a DG to be considered already operating, or ready to load, the voltage and frequency conditions shown must be met. Voltage and frequency conditions are described in the section below of proposed changes to SR 3.8.1.2.

It is specified that the condition under which nonessential loads are tripped is on a SIAS.

Surveillance Requirements

The proposed change revises DG operating voltage tolerances based on the setpoint of the 4.16 kV undervoltage (UV) relays, and the maximum motor terminal voltage allowed for 4160 V motors. The lower tolerance ensures that the UV relays will reset, and the higher tolerance represents nominal motor terminal voltage +10%. These tolerances are explained in the discussion. It is also clarified that the requirements for minimum operating voltage refer to steady state values. Also, an explanation is given that states minimum

voltage requirements will also ensure adequate voltage is available at the lower service levels (down through 120 V). Words which state that a required minimum operating voltage at 80% of nameplate rating are removed, since it does not accurately describe the voltage requirements for all voltage levels.

DG operating frequency tolerances were formerly based solely upon the Regulatory Guide 1.9 requirements of +/- 2% of nominal, or 58.8 Hz to 61.2 Hz. A new lower limit (59.7 Hz) is established in order to maintain high pressure safety injection system performance as assumed in the accident analyses. The upper limit remains at 61.2 Hz per the Regulatory Guide.

A paragraph is added to explain that during surveillance testing, the total loop uncertainty (TLU) of the measurement device used for the test must be considered.

SR 3.8.1.1:

The terms "appropriate independence of" are replaced with "availability of independent" to more clearly describe the first and second offsite power circuit requirements.

SR 3.8.1.2 and SR 3.8.1.7:

It is made clear that a prelube period and warmup (modified start) period is permitted per SR 3.8.1.2, but only a prelube period is permitted for SR 3.8.1.7. Also, reference to SR 3.8.1.2 is added to clarify which SR Note 3 was applicable for, which allows the warmup period (modified start) for the DG.

The frequency requirement of 184 days for SR 3.8.1.7 is removed from the bases, as it is specified in the SR per Regulatory Guide 1.9. The 10 second DG start requirement is revised to 9.4 seconds to indicate the required time for the DG to be in a ready to load condition, without the DG breaker closed. The 9.4 second criteria is required to allow time for the subsequent DG breaker closure, and to allow the bus undervoltage relay logic to reset and initiate load sequencing. This will allow the bus to be energized in ≤10 seconds, which is the assumption used in the design basis LOCA safety analyses.

In the discussion of the notes indicated for SR 3.8.1.2 and SR 3.8.1.7, the referenced DG start time of 10 seconds is changed to 9.4 seconds for the same reasons as discussed above. Neither SR 3.8.1.2 nor SR 3.8.1.7 require closing the DG breaker and connecting the DG to the bus.

SR 3.8.1.3:

The proposed change adds a discussion to indicate the requirements of Regulatory Guide 1.9 versus the values used in the SR. In order to assure that a minimum of 90% of rated load is connected for the surveillance, a value of 4450 kW (94.7% rated output) is used based on design basis loading and includes instrument uncertainty plus margin. It is made clear that instrument uncertainty is not applied to the upper load limit criteria (DG rated output).

Former reference to the required maintained power factor during the test is deleted. DG parameters displayed in the control room do not include power factor, and show only kW and kVAR values. A discussion is added to explain that the test is performed with the maximum DG kVAR output that the offsite power system conditions permit, while not exceeding DG equipment ratings of 3200 kVAR, 4 amps DC excitation current, 4550 V on the 4.16 kV bus, or 750 amps on the DG feeder. It is explained that under these conditions, DG operability is demonstrated to the extent practicable, and is consistent with the recommendations of Regulatory Guide 1.9 and Information Notice 91-13.

It is clarified that momentary transients refer to the DG loads, and that momentary power factor transients are not applicable as discussed above, since kW and kVAR values are monitored per the surveillance procedures. An editorial correction removes the term "prerequisite requirement for performance of this SR" since it is redundant.

SR 3.8.1.4:

The fuel oil day tank level of 30 inches is clarified by indicating that instrument uncertainties are included, and that the level corresponds to the minimum requirement of 355.1 gallons of fuel oil.

SR 3.8.1.6:

A change indicates the surveillance requires that for each operable DG, as a minimum, one fuel oil transfer pump operates to transfer fuel. Since this surveillance demonstrates the capability of the pump transfer system by manual actuation, "automatic" operation is not demonstrated and the term is removed from the bases. It is also explained that one transfer pump will operate automatically, while a second transfer pump can be manually started.

SR 3.8.1.10:

The required minimum load to be rejected is revised from 94.5% to 90% of continuous rating in order to agree with Regulatory Guide 1.9. The discussion then explains that the surveillance requirement stipulates a load of 4450 kW (94.7%). The revised value is based on design basis loading and includes instrument uncertainty plus margin. This ensures that the requirements of the Regulatory Guide are met. The upper load limit for this surveillance remains at 4700 kW.

A basis for the transient voltage limit value of 5450 V is explained as being 125% of continuous rated voltage of 4360 V. The limit is consistent with Regulatory Guide 1.9.

A discussion is added to explain that the test is performed under inductive load conditions that are as close to design basis conditions as possible. The testing is also performed with the maximum DG kVAR output that offsite power system conditions permit, while not exceeding DG equipment ratings of 3200 kVAR, 4 amps DC excitation current, 4550 V on the 4.16 kV bus, or 750 amps on the DG feeder. It is explained that under these conditions, DG operability is demonstrated to the extent practicable, and is consistent with the recommendations of Regulatory Guide 1.9 and Information Notice 91-13.

SR 3.8.1.11:

Shedding of "the nonessential" loads is removed, as this applies only for a SIAS signal. The energization of "permanently" connected loads is described in lieu of "emergency buses" because for a loss of power only, emergency loads are not connected. It is explained that the permanently connected loads include the Class 1E loadcenters and Motor Control Centers (MCCs), and that there are no autoconnected shutdown loads to be sequenced. The discussion adds that the surveillance also demonstrates the capability to close the DG output breaker, connect to the ESF bus, and reset the 4.16 kV undervoltage relay logic within the specified time. The undervoltage relay logic reset time must be considered as part of the DG auto-start sequence time (≤10 seconds assumed in the safety analyses), as resetting the logic allows ESF load sequencing to begin.

For the restored frequency, the "2% of nominal" tolerance is replaced by "the specified range," as indicated in the surveillance requirement. The reference to "a load sequence step" is replaced by "energization of the permanently connected loads," as there is no ESF load sequencing during a loss of power.

The term "shedding" is added to be included in the requirements of a valid demonstration for this surveillance, and "connection and loading" is replaced with "load shedding and reenergization of permanently connected loads" for clarification purposes for the loss of power scenario.

SR 3.8.1.12:

The term "SIAS" is added to clarify that the ESF actuation signal that initiates a DG start is a SIAS. This change eliminates the ambiguity that existed in the bases by now referring to a specific signal. The reference to "design basis actuation signal" is removed.

The timing requirement for achieving the required DG voltage and frequency is changed from 10 seconds to 9.4 seconds. See the description of change above for bases of SR 3.8.1.7.

SR 3.8.1.13:

The reference to "loss of voltage signal concurrent with an ESF actuation test signal" is removed in lieu of the term "SIAS." This is because noncritical DG protective functions are disabled only when a SIAS occurs, whether a concurrent LOVS is present or not.

It is explained that noncritical trip alarms (bypassed on SIAS) are addressed by operators "to prevent damage to the DG." Also, a discussion is added to explain that a series of sequential, overlapping or total steps are permitted when testing the noncritical protective trip bypass function.

SR 3.8.1.14:

The Bases includes the surveillance requirement lower load limit of 4450 kW based on the Regulatory Guide, instrument uncertainty and design margin. This is described in the proposed change for the Bases of SR 3.8.1.10 above.

A paragraph is added to explain that during this test, the DG is connected to the offsite power supply. Under these conditions, operators have minimal control over DG operating voltage and frequency.

A discussion elaborates on requirements for DG loading during this test, while considering DG equipment operating limits. Further details of this is described in the proposed change for the Bases of SR 3.8.1.10 above.

It is clarified that momentary transients refer to the DG loads, and the reference to momentary power factor transients above the power factor limit is removed. Further details of this is also described in the proposed change for the Bases of SR 3.8.1.10 above.

SR 3.8.1.15:

The proposed change revises the time interval for achieving the required DG voltage and frequency from 10 seconds to 9.4 seconds. This change is discussed in the Bases for SR 3.8.1.7 above. It is clarified that momentary transients refer to the DG loads, and the terms "due to changing bus loads" is removed.

SR 3.8.1.16:

The term "manual" is added to indicate that the DG is manually synchronized with the offsite power source during the test. Reference to "rated speed" is replaced by "specified frequency" for the ready to load condition as per the surveillance requirement. It is further explained that if the test is performed with a SIAS present (DG breaker opens), the transfer and synchronization to offsite power will be automatic, while without a SIAS the DG breaker remains closed until the bus is manually transferred. In this case, the DG output breaker is then manually opened.

SR 3.8.1.17:

The proposed change adds a statement which defines that the DG availability is not compromised as a result of testing with the DG connected to offsite power. The word "reset" to ready to load is replaced with "return" to ready to load. It is explained that in the ready to load condition, the DG is running "within the specified frequency and voltage", and not at "rated speed and voltage." The statement that indicates the "requirement to automatically energize the emergency loads with offsite power is essentially identical to that of SR 3.8.1.12" is removed, while the terms "intent in the requirement to automatically energize the emergency loads with offsite power" are added to clarify the purpose of the requirement. A statement is added to indicate that emergency loading is not affected by the DG in "the" test mode "in parallel with offsite power."

SR 3.8.1.19:

The terms "a loss of offsite power actuation test signal in conjunction with an ESF actuation signal (SIAS)" is replaced with a discussion which relates to "an actual or simulated loss of offsite power signal in conjunction with actual or simulated ESF actuation signals." All applicable ESF actuation

signals are listed, and it is explained that multiple signals are used during the surveillance to provide worst case load sequencing conditions for the DG. The words "shedding" and "load shedding" are added in the description of sequential, overlapping or total steps that may be used to meet the surveillance requirements.

Safety Analysis

The proposed change described above shall be deemed to involve a significant hazards consideration if there is a positive finding in any one of the following areas:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

   Response: No

   The proposed change would revise Technical Specification (TS) TS 3.8.1, "AC Sources - Operating," Surveillance Requirement (SRs) 3.8.1.1, 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.19, and 3.8.1.20 and applicable Bases to more clearly reflect surveillance test conditions and system design requirements. Changes to the SRs include more restrictive voltage and frequency acceptability limits. The new requirements reflect the system design requirements in order to ensure Class 1E system operability, meet the requirements of the safety analysis, and to agree with the existing test surveillances. In addition, the discussion regarding design basis reactive power loading is eliminated since this cannot be readily controlled during testing.

   Operation of the facility would remain unchanged as a result of the proposed change and no assumptions or results of any accident analyses are affected. Therefore, the proposed change will not involve a significant increase in the probability or consequences of any accident previously evaluated.

2. Will operation of the facility in accordarce with this proposed change create the possibility of a new or different kind of accident from any previously evaluated?

   Response: No

   The proposed change would revise Technical Specification (TS) TS 3.8.1, "AC Sources - Operating," Surveillance Requirement (SRs) 3.8.1.1, 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.19, and 3.8.1.20 and applicable Bases to more clearly reflect surveillance test conditions and system design requirements.

Operation of the facility would remain unchanged as a result of the proposed change. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

The proposed change would revise Technical Specification (TS) TS 3.8.1, "AC Sources - Operating," Surveillance Requirement (SRs) 3.8.1.1, 3.8.1.2, 3.8.1.7, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.19, and 3.8.1.20 and applicable Bases to more clearly reflect surveillance test conditions and system design requirements. Changes to the SRs include more restrictive voltage and frequency acceptability limits. The new requirements reflect the system design requirements in order to ensure Class 1E system operability, meet the requirements of the safety analysis, and to agree with the existing test surveillances.

Therefore, the proposed change will not involve a significant reduction in a margin of safety.

Safety and Significant Hazards Determination

Based on the above Safety Analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92 and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change. Moreover, because this action does not involve a significant hazards consideration, it will also not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.