BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY for a Class 104(b) License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 1 of the San Onofre Nuclear Generating Station	)	DOCKET NO. 50-206 Amendment No. 159

SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY, pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 159.

This amendment consists of Proposed Change No. 186 to Provisional Operating License No. DPR-12. Proposed Change No. 186 modifies the Technical Specifications incorporated in Provisional Operating License No. DPR-13 as Appendix A.

Proposed Change No. 186 is a request to revise Appendix A Technical Specification 4.2, "Safety Injection and Containment Spray System Periodic Testing," to include surveillance of a modification to include a safety injection and Feedwater pump trip on low-low RWST level, and revise diesel generator load rejection.

In the event of conflict, the information in Amendment Application No. 186 supersedes the information previously submitted.

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Based on the significant hazards analysis provided in the Description of Proposed Change and Significant Hazards Analysis of Proposed Change No. 186, it is concluded that (1) the proposed change does not involve a significant hazards consideration as defined in 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.

Pursuant to 10 CFR 170.12, the fee of $150 is herewith remitted.

Subscribed on this 11th day of November, 1988.

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

By: Kenneth P. Baskin
Kenneth P. Baskin
Vice President

Subscribed and sworn to before me this 11th day of November, 1988.

OFFICIAL SEAL
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Notary Public-California
LOS ANGELES COUNTY
My Comm. Exp. Apr. 20, 1990

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY (San Onofre Nuclear Generating Station Unit No. 1	)))))	Docket No. 50-206

CERTIFICATE OF SERVICE

I hereby certify that a copy of Amendment Application No. 159 was served on the following by deposit in the United States Mail, postage prepaid, on the 11th day of November, 1988.

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DESCRIPTION AND SIGNIFICANT HAZARDS ANALYSIS OF
PROPOSED CHANGE NO. 186 TO THE TECHNICAL SPECIFICATIONS
PROVISIONAL OPERATING LICENSE NO. DPR-13

This is a request to revise Section 4.2.1, "SAFETY INJECTION AND CONTAINMENT SPRAY SYSTEM PERIODIC TESTING," Section 3.5.6, "Accident Monitoring Instrumentation," and Section 4.4, "Emergency Power System Periodic Testing," of the Appendix A, Technical Specifications for San Onofre Nuclear Generating Station, Unit 1 (SONGS 1).

DESCRIPTION OF CHANGE

Technical Specification 4.2.1 describes the testing that is performed to demonstrate operability of the Safety Injection (SI) System and the Containment Spray System. The performance of this testing, at the specified frequency, is necessary to verify that these systems will respond promptly and properly, if required. Proposed Change No. 186 proposes to revise 4.2.1 to include the testing of a planned modification to this system. The modification consists of a trip of the SI and feedwater pumps at some preset Refueling Water Storage Tank (RWST) level. The modification is being installed for the purpose of complying with an SCE committed resolution of Systematic Evaluation Program (SEP) Topic VI-7.B, Engineered Safety Feature Switchover from Injection to Recirculation Mode.

In addition, as a result of this modification, Technical Specification 3.5.6, "Accident Monitoring Instrumentation," and 4.4, "Emergency Power System Periodic Testing" are also revised by Proposed Change No. 186. As part of the modification, a redundant safety related level indicator for the RWST will be installed in the control room. The indicator will be included in the circuit of an existing level transmitter on the RWST. Table 3.5.6-1, Accident Monitoring Instrumentation, is revised to indicate two RWST level indicators in the "Total No. of Channels" column.

Another result of the modification is that the load which is rejected by a diesel generator is increased. This is due to the tripping of the SI and feedwater pumps at a preset RWST level. In the event the Safety Injection System is powered by the diesel generators tripping of both pumps results in a rejected load of 4000 kW. Therefore, the surveillance testing of the diesel generator for rejected load is revised to 4000 kW.

EXISTING TECHNICAL SPECIFICATION

See Attachment 1

PROPOSED TECHNICAL SPECIFICATION

See Attachment 2

SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

As required by 10 CFR 50.91(a)(1), this analysis is provided to demonstrate that a proposed license amendment to include additional testing requirements for a planned installation of a new Safety Injection System design feature at SONGS 1 represents a no significant hazards consideration. In accordance with

the three factor test of 10 CFR 50.92(c), implementation of the proposed license amendment was analyzed using the following standards and found not to: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; or 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

SCE letter to the NRC dated October 4, 1985 committed to install an automatic trip feature to the SI system to terminate primary system injection on low RWST level. This modification is scheduled to be implemented during the upcoming Cycle X refueling outage currently scheduled for Fall 1988. The modification consists of the addition of six level switches on the RWST to provide a two out of three logic signal to trip the SI and feedwater pumps on low-low RWST level. The system is aligned to provide one, two out of three logic trip signal to each SI/feedwater pump train. This modification resolves the NRC concern identified during the SEP Integrated Plant Safety Assessment for SONGS 1, as documented in NUREG-0829. The proposed technical specifications will incorporate into the SONGS 1 Technical Specifications surveillance requirements for the new system. There is no need for a specific revision to the Technical Specification Section 3 Limiting Condition for Operation (LCO) for the SI system, as the existing operability requirements, delineated in Technical Specification 3.3.1, require that all of the SI system interlocks be operable when the SI system is required to be operable. Therefore, as the SI/feedwater pump trip on low-low RWST level is considered to be within this scope, no revision to Technical Specification 3.3.1 is required. In addition, the revision includes the additional RWST level indicator and the revised rejected load for the diesel generators.

The revision to Technical Specification 4.2 consists of the addition of a part II.E that describes that a channel test shall be performed monthly and a channel calibration performed on a refueling outage basis. These tests are consistent with tests for similar systems in NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors" (the STS), consist of the inclusion of an additional test not previously required, and as such are not deemed to constitute a significant hazards consideration.

Analysis

Conformance of the proposed changes to the standards for a determination of no significant hazards as defined in 10 CFR 50.92 (three factor test) is shown in the following:

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

   RESPONSE: NO

   Operation of the facility in accordance with this proposed change will assure that a modification to be installed to mitigate a safety concern is appropriately tested to determine operability. The

modification is intended to preclude operator misoperation or equipment malfunction from interfering with the progression of events assumed in a previously analyzed accident. Specifically this modification ensures the transition from safety injection to long-term recirculation occurs in a manner that precludes the potential impact that depleted water volume in the RWST could have on these safety systems. Implementation of this proposed change merely requires a surveillance of the modified plant configuration in a manner consistent with other plant systems of this type and, accordingly, results in a reduction in the inoperability risk for this safety system. The addition of the redundant RWST level indicator does not affect accident probability or consequences. The requirement to test the diesel at the increased rejected load ensures the diesel generator will perform its safety function during the accident. Therefore, it is concluded that operation of the facility in accordance with this proposed change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   RESPONSE: NO

   Operation of the facility in accordance with this proposed change assures that the plant is kept within the bounds of the scope of previously analyzed accidents. The only postulated new event would be spurious, premature trip of the SI/feedwater pumps, but the two-out-of-three logic provides protection, similar to that provided for other instrumentation actuation logic systems, against the possibility of a single failure causing this undesirable situation. The proposed technical specification changes assure that the instrumentation is operable to perform its intended function. The identification of a redundant RWST level indicator by this change has no impact on the accident. The increase in the diesel generator load rejection surveillance ensures the diesel generators will function during the accident. Therefore, it is concluded that operation of the facility in accordance with this proposed change does 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

   Operation of the facility in accordance with this proposed change will assure that a margin of safety determined to be necessary for SONGS 1 is properly tested and calibrated, such that it is

maintained in a configuration consistent with the design margin of safety. Therefore, it is concluded that operation of the facility in accordance with this proposed change does not involve any reduction in a margin of safety.

SAFETY AND SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the preceding analysis, it is concluded that: (1) Proposed Change No. 186 does not involve 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.

ATTACHMENT 1 - EXISTING SPECIFICATION
ATTACHMENT 2 - PROPOSED SPECIFICATION

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ATTACHMENT 1

EXISTING TECHNICAL SPECIFICATION

3.5.6 ACCIDENT MONITORING INSTRUMENTATION

APPLICABILITY: MODES 1, 2 and 3. 83 11/2/84

OBJECTIVE: To ensure reliability of the accident monitoring instrumentation. 64 12/16/81

SPECIFICATION: The accident monitoring instrumentation channels shown in Table 3.5.6-1 shall be OPERABLE.

ACTION:

A. With the number of OPERABLE accident monitoring instrumentation channels less than the Total Number of Channels shown in Table 3.5.6-1, either restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

B. With the number of OPERABLE accident monitoring instrumentation channels less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.5.6-1, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours. 83 11/2/84

C. The provisions of Specification 3.0.4 are not applicable.

BASIS: The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations." 64 12/16/81

References:

(1) NRC letter dated July 2, 1980, from D. G. Eisenhut to all pressurized water reactor licensees.

(2) NRC letter dated November 1, 1983, from D. G. Eisenhut to all Pressurized Water Reactor Licensees, NUREG-0737 Technical Specification (Generic Letter No. 83-37).

TABLE 3.5.6-1

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
Pressurizer Water Level	3	2
Auxiliary Feedwater Flow Indication*	2/steam generator	1/steam generator
Reactor Coolant System Subcooling Margin Monitor	2	1
PORV Position Indicator (Limit Switch)	1/valve	1/valve
PORV Block Valve Position Indicator (Limit Switch)	1/valve	1/valve
Safety Valve Position Indicator (Limit Switch)	1/valve	1/valve
Containment Pressure (Wide Range)	2	1
Steam Generator Water Level (Narrow Range)	1/steam generator	1/steam generator
Refueling Water Storage Tank Level	1	1
Containment Sump Water Level (Narrow Range)**	2	1
Containment Water Level (Wide Range)	2	1

* Auxiliary feedwater flow indication for each steam generator is provided by one channel of steam generator level (Wide Range) and one channel of auxiliary feedwater flow rate. These comprise the two channels of auxiliary feedwater flow indication for each steam generator.

** Operation may continue up to 30 days with one less than the total number of channels OPERABLE.

Typo Revised: 11/28/84
Revised: 11/16/84
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4.2 SAFETY INJECTION AND CONTAINMENT SPRAY SYSTEM

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4/20/81

4.2.1 SAFETY INJECTION AND CONTAINMENT SPRAY SYSTEM PERIODIC TESTING

APPLICABILITY: Applies to testing of the Safety Injection System and the Containment Spray System.

OBJECTIVE: To verify that the Safety Injection System and the Containment Spray System will respond promptly and properly if required.

SPECIFICATION: I. System Test

A. Safety Injection System

(1) During reactor shutdown at intervals not longer than the normal plant refueling intervals, a "no-flow" system test shall be conducted to demonstrate proper availability of the system. The test shall be performed in accordance with the following procedure: 34 4/1/77

(a) The feedwater, safety injection, charging, condensate, and heater drain pumps shall not be operating. Their respective breakers shall be racked-out to the test position with control power available.

(b) The flow path for condensate shall be positively blocked prior to the test.

(c) Injection and recirculation system operation shall be initiated by instrumentation and controls installed in the control room.

(2) The test will be considered satisfactory if control board indication and visual observations indicate all components have operated and sequenced properly. That is, the appropriate pump breakers have opened and closed, and all valves have completed their travel.

(3) A test of the trisodium phosphate additive shall be conducted to demonstrate the availability of the system. The test shall be performed in accordance with the following procedure:

(a) The three (3) storage racks are visually observed to have maintained their integrity.

(b) The three (3) racks, each with a storage capacity of 1800 pounds of anhydrous trisodium phosphate additive, are visually observed to be full.

(c) Trisodium phosphate from one of the sample storage racks inside containment shall be submerged, without agitation, in 25±0.5 gallons of 150°F to 175°F distilled water borated to 3900±100 ppm boron. 44 10/31/78

(4) The test shall be considered satisfactory if the racks have maintained their integrity, the racks are visually observed to be full, and the trisodium phosphate dissolves to the extent that a minimum pH of 7.0 is reached within 4 hours of the start of the test.

B. Containment Spray System

(1) During reactor shutdown at intervals not longer than the normal plant refueling intervals, a "no-flow" system test shall be conducted to demonstrate proper availability of the system. The test shall be performed either by closing a manual valve in the system or electrically disabling the refueling water pumps and initiating the system by tripping the normal actuation instrumentation. 34 4/1/77

The test will be considered satisfactory if visual observations indicate all components have operated satisfactorily.

(2) At least once every second refueling outage an air flow test shall be performed to demonstrate the absence of blockage at each containment spray nozzle. 44 10/31/78

II. Component Tests

A. In addition to the above test, when the reactor is critical, the safety injection pumps and recirculation pumps shall be started at intervals not to exceed one month to verify that they are in satisfactory running order. The spray additive pumps and refueling water pumps shall be started at intervals not to exceed one month whenever the reactor coolant system temperature is above 200°F. When periods of reactor subcriticality or reactor shutdown extend the test interval beyond one month, these pumps shall be tested prior to a return to criticality or prior to increasing the temperature above 200°F, as appropriate.

B. Acceptable levels of performance shall be as follows:

(1) The safety injection pumps shall reach and be capable of maintaining 95% of their rated shutoff head within 10 seconds after starting.

(2) The refueling water pumps shall be capable of maintaining 90% of their rated shutoff head. 34 4/1/77

(3) The recirculation pumps shall be run dry. Proper starting of the pump is confirmed by observation of the running current on the ammeter.

(4) The spray additive pumps shall be capable of maintaining their rated flow at a discharge pressure not less than 90% of their rated discharge pressure.

C. The recirculation loop outside containment (including the Containment Spray System) shall be pressurized at a pressure equal to or greater than the operating pressure under accident conditions at intervals not to exceed the normal plant refueling interval. Visual inspections for leakage shall be made and if leakage can be detected, measurements of such leakage shall be made. In addition, pumps and valves of the recirculation loop outside containmnet which are used during normal operation, shall be visually inspected for leakage at intervals not to exceed once every six months. If leakage can be detected, measurements of such leakage shall be made.

D. The non-redundant Containment Spray System piping shall be visually inspected at intervals not to exceed the normal plant refueling interval. Observations made as part of compliance with Paragraph C, above, or Paragraph I.B(2) of Technical Specification 4.2 will be acceptable as visual inspection of portions of non-redundant Containment Spray System piping. 44 10/31/78

BASIS:

The Safety Injection System is a principal plant safeguard. It provides means to insert negative reactivity and limits core damage in the event of a loss of coolant or steam break accident. (1) (2) (3)

Preoperational performance tests of the components are performed in the manufacturer's shop. An initial system flow test demonstrates proper dynamic functioning of the system. Thereafter, periodic tests demonstrate that all components are functioning properly. For these tests, flow through the system is not required. 34 4/1/77

The tests specified above will demonstrate that all components which do not normally and routinely operate will operate properly and in sequence if required. The portion of the Recirculation system outside the containment sphere is effectively an extension of the boundary of the containment. The measurement of the recirculation loop leakage ensures that the calculated EAB 0-2 hr. thyroid dose does not exceed 10 CFR 100 limits.

The trisodium phosphate stored in storage racks located in the containment is provided to minimize the possibility of stress corrosion cracking of metal components during operation of the ECCS following a LOCA. The trisodium phosphate provides this protection by dissolving in the sump water and causing its final pH to be raised to 7.0 - 7.5. The requirement to dissolve trisodium phosphate from one of the sample storage racks in distilled water heated and borated, to the extent recirculating post LOCA sump water is projected to be heated and borated, provides assurance that the stored trisodium phosphate will dissolve as required following a LOCA. The sample storage racks are sized to contain 0.5 pounds of trisodium phosphate. Trisodium phosphate stored in the sample storage racks has a surface area to volume ratio of 1.33 whereas the trisodium phosphate stored in the main racks has a surface area to volume ratio of 1.15. 44 10/31/7

Visual inspection of the non-redundant piping in the Containment Spray System provides additional assurance of the integrity of that system.

References:

(1) Final Engineering Report and Safety Analysis, Paragraph 5.1.

(2) "San Onofre Nuclear Generating Station", report forwarded by letter dated December 29, 1971 from Jack B. Moore to Director, Division of Reactor Licensing, USAEC, subject: Emergency Core Cooling System Performance, San Onofre Nuclear Generating Station, Unit 1. 34 4/1/77

(3) USAEC Safety Evaluation of ECCS Performance Analysis for San Onofre Unit 1, forwarded by letter dated March 6, 1974 from Mr. Donald J. Skovholt to Mr. Jack B. Moore.

4.4 EMERGENCY POWER SYSTEM PERIODIC TESTING

APPLICABILITY: Applies to testing of the Emergency Power System. 82 11/7/84

OBJECTIVE: To verify that the Emergency Power System will respond promptly and properly when required.

SPECIFICATION:

A. The required offsite circuits shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignments and power availability.

B. The required diesel generators shall be demonstrated OPERABLE: 84 11/14/84

1. At least once per 31 days on a STAGGERED TEST BASIS by:

   a. Verifying the diesel performs a DG SLOW START from standby conditions, 105 7/22/88

   b. Verifying a fuel transfer pump can be started and transfers fuel from the storage system to the day tank, 34 4/1/77

   c. Verifying the diesel generator is synchronized and running at 4500 kW ± 5% for ≥ 60 minutes, to include a brief load increase to 5250 kW ± 5%, 105 7/22/88

   d. Verifying the diesel generator is aligned to provide standby power to the associated emergency buses,

   e. Verifying the day tank contains a minimum of 290 gallons of fuel, and 34 4/1/77

   f. Verifying the fuel storage tank contains a minimum of 37,500 gallons of fuel.

2. At least once per 3 months by verifying that a sample of diesel fuel from the required fuel storage tanks is within the acceptable limits as specified by the supplier when checked for viscosity, water and sediment. 84 11/14/84

C. AC Distribution

1. The required buses specified in Technical Specification 3.7, Auxiliary Electrical Supply, shall be determined OPERABLE and energized from AC sources other than the diesel generators with tie breakers open between redundant buses at least once per 7 days by verifying correct breaker alignment and power availability. 34 4/1/77

D. The required DC power sources specified in Technical Specification 3.7 shall meet the following: 84 11/14/84

1. Each DC Bus train shall be determined OPERABLE and energized at least once per 7 days by verifying correct breaker alignment and power availability. 34 4/1/77

2. Each 125 volt battery bank and charger shall be demonstrated OPERABLE:

   a. At least once per 7 days by verifying that:

      (1) The parameters in Table 4.4-1 meet the Category A limits, and

      (2) The total battery terminal voltage is greater than or equal to 129 volts on float charge.

   b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 110 volts, or battery overcharge with battery terminal voltage above 150 volts, by verifying that: 84 11/14/84

      (1) The parameters in Table 4.4-1 meet the Category B limits,

      (2) There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohms, and

      (3) The average electrolyte temperature of ten connected cells is above $61^{\circ}F$ for battery banks associated with DC Bus No. 1 and DC Bus No. 2 and above $48^{\circ}F$ for the UPS battery bank.

   c. At least once per 18 months by verifying that:

      (1) The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

      (2) The cell-to-cell and terminal connections are clean, tight and coated with anti-corrosion material, 34 4/1/77

      (3) The resistance of each cell-to-cell and terminal connection is less than or equal to 150×10^{-6} ohms, 84 11/14/84

(4) The battery charger for 125 volt DC Bus No. 1 will supply at least 800 amps DC at 130 volts DC for at least 8 hours,

(5) The battery charger for 125 volt DC Bus No. 2 will supply at least 45 amps DC at 130 volts DC for at least 8 hours, and

(6) The battery charger for the UPS will supply at least 10 amps AC at 480 volts AC for at least 8 hours as measured at the output of the UPS inverter.

d. At least once per 18 months, during shutdown, by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated emergency loads for the design duty cycle when the battery is subjected to a battery service test.

e. At least once per 60 months, during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test required by Surveillance Requirement 4.4.D.2.d. 84 11/14/84

f. Annual performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

E. The required Safety Injection System Load Sequencers shall be demonstrated OPERABLE at least once per 31 days on a staggered test basis, by simulating SISLOP* conditions and verifying that the resulting interval between each load group is within ± 10% of its design interval.

F. The required diesel generators and the Safety Injection System Load Sequencers shall be demonstrated OPERABLE at least once per 18 months during shutdown by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2. Simulating SISLOP*, and:

   a. Verifying operation of circuitry which locks out non-critical equipment, — 84 11/14/84

   b. Verifying the diesel performs a DG FAST START from standby condition on the auto-start signal, energizes the emergency buses with permanently connected loads and the auto connected emergency loads** through the load sequencer (with the exception of the feedwater, safety injection, charging and refueling water pumps whose respective breakers may be racked-out to the test position) and operates for ≥ 5 minutes while its generator is loaded with the emergency loads, — 105 7/22/88; 84 11/14/84

   c. Verifying that on the safety injection actuation signal, all diesel generator trips, except engine overspeed and generator differential, are automatically bypassed. — 95 7/3/86

3. Verifying the generator capability to reject a load of 3220 kW without tripping. — 84 11/14/84

* SISLOP is the signal generated by coincident loss of offsite power (loss of voltage on Buses 1C and 2C) and demand for safety injection.

** The sum of all loads on the engine shall not exceed 5250 kW + 5%. — 105 7/22/88