

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 Application No. 132

SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC  
COMPANY, pursuant to 10 CFR 50.90, hereby submit Amendment No. 132.

This amendment consists of Proposed Change No. 156 to the Technical  
Specifications incorporated in Provisional Operating License No. DPR-13 as  
Appendices A and B.

Proposed Change No. 156 will replace Technical Specification 4.2.3,  
"Safety Injection System Hydraulic Valve Testing (Surveillance Requirement)"  
with a revision to Specification 4.2.1, "Safety Injection and Containment  
Spray System Periodic Testing."

In the event of conflict, the information in Amendment Application  
No. 132 supersedes the information previously submitted.

Based on the safety analysis provided in the Description of Proposed  
Change and Safety Analysis, it is concluded that (1) this proposed change does  
not involve an unreviewed safety question as defined in 10 CFR 50.59, nor does

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it present significant hazards considerations not described or implicit in the Final Safety Analysis, 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, as revised in 49 FR 21293 dated May 21, 1984, the review of the Proposed Change contained in Amendment Application No. 132 has been determined to require a fee of \$150.00. The fee of \$150.00 is herewith remitted.

GEH:5392F

Subscribed on this 20<sup>th</sup> day of Nov., 1985

Respectfully submitted,  
SOUTHERN CALIFORNIA EDISON COMPANY

By Robert Dietch  
Robert Dietch  
Vice President

Subscribed and sworn to before me this  
20<sup>th</sup> day of November, 1985.



C. Sally Sebo  
Notary Public in and for the County of  
Los Angeles, State of California

My Commission Expires: Apr 14, 1986

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By James A. Beoletto  
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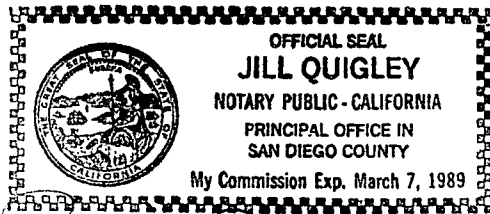
Subscribed on this 15 day of November, 1985.

Respectfully submitted,  
SAN DIEGO GAS & ELECTRIC COMPANY

By J. C. Holcombe  
J. C. Holcombe  
Vice President

Subscribed and sworn to before me this

15<sup>th</sup> day of November, 1985.



Jill Quigley  
Notary Public in and for the County of  
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My Commission Expires: March 7, 1989

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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 No. 132 was served on the following by deposit in the United States Mail, postage prepaid, on the 21st day of November, 1985.

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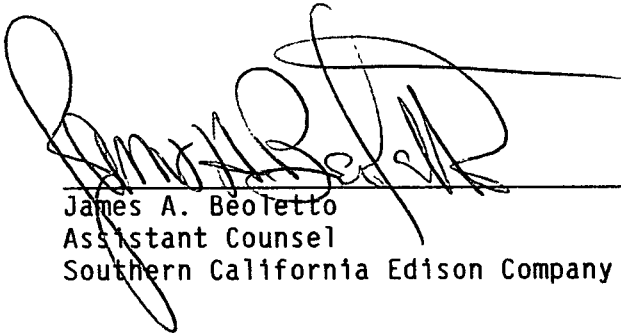
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Southern California Edison Company

Description of Proposed Change No. 156 and Safety Evaluation  
Provisional Operating License DPR-13

This is a request to revise Sections 4.2.1, "Safety Injection and Containment Spray System Periodic Testing," and 4.2.3, "Safety Injection System Hydraulic Valve Testing (Surveillance Requirement)" of San Onofre Unit 1 Provisional Operating License DPR-13 Appendix A Technical Specifications.

Description

Section 4.2.3 of the Technical Specifications includes provisions for interim surveillance of the San Onofre Unit 1 Safety Injection System (SIS). The specification includes a provision to establish a long-term program. This proposed change replaces the interim program which requires plant shutdown every 92 days with an addition to the periodic system testing of specification 4.2.1.

Attachment 3 to this proposed change supports the replacement of the hot SIS functional test with an additional provision in specification 4.2.1 to verify valve travel within the time required by the safety analysis.

Existing Specification

Attachment 1 is a copy of existing specifications 4.2.1 "Safety Injection and Containment Spray System Periodic Testing," and 4.2.3, "Safety Injection System Hydraulic Valve Testing (Surveillance Requirement)."

Proposed Specification

Attachment 2 is a copy of the revised sections.

Safety Evaluation

The proposed change discussed above is determined not to constitute a significant hazards consideration as it does not degrade plant safety. The interim program was instituted in order to verify the success of modifications made during the September 3, 1981 SIS outage. Attachment 3 provides the results of the tests performed to date which demonstrate acceptable valve performance. The responses to the following questions further support this conclusion:

1. Question

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

This change eliminates the interim SIS surveillance requirement established to verify the success of modifications performed in September 1981. Attachment 3 provides a summary of the results of the testing and documents the success of the modifications. Since SIS performance is not degraded there is no impact on any safety analysis involving the need for safety injection.

2. Question

Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident?

Response: No

The changes in these specifications do not involve any changes in SIS performance characteristics. The system will continue to be available to perform its safety function as described in the Final Safety Analysis.

3. Question

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

Response: No

Since no changes to the Safety Injection System are associated with this change, there will be no change in a margin of safety.

This proposed change is similar to example (iv) of the "Examples of Amendments That are Considered Not Likely to Involve Significant Hazards Considerations" as published in 48 FR 14864 dated April 6, 1983. Example (iv) states:

A relief granted upon demonstration of acceptable operation from an operating restriction that was imposed because acceptable operation was not yet demonstrated. This assumes that the operating restriction and the criteria to be applied to a request for relief have been established in a prior review and that it is justified in a satisfactory way that the criteria have been met.

The existing specification is similar to this example because it is an "interim" program designed to demonstrate by special test the acceptability of the modified Safety Injection System. The revision to specification 4.2.1 provides continuing assurance of acceptable SIS performance.



Safety and Significant Hazards Determination

Based on the safety analysis, it is concluded that:

1. the Proposed Change does not constitute a significant hazards consideration as defined by 10 CFR 50.92;
2. there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and
3. this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Environmental Statement.

GEH:5108F

ATTACHMENT 1  
EXISTING SPECIFICATIONS

## 4.2 SAFETY INJECTION AND CONTAINMENT SPRAY SYSTEM

### 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:
  - (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.

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.

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.

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.
- (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.

#### 4.2.3 SAFETY INJECTION SYSTEM HYDRAULIC VALVE TESTING (SURVEILLANCE REQUIREMENT)

An interim surveillance testing program shall be conducted during the remainder of the current fuel cycle which began in June 1981. At the next refueling outage, the interim program shall be supplanted by a long term surveillance testing program. It is intended that this long term program will be developed and submitted to the NRC for review and approval at least 60 days prior to the next refueling outage.

The interim surveillance program shall be as follows:

1. At least once every 92 days, (except when the interval lapses while in mode 5 or 6, in which case the test may be delayed until a mode 3 or 4 operation prior to the next entry into mode 2) the unit shall be placed in mode 3 or 4 and a Hot SIS functional test (with the MOV-850 A, B&C valves locked closed) shall be performed. This test shall include a determination of the force required to open valves HV-851 A&B and the margin to available actuation force. This test shall be evaluated on the basis of the following criteria:
  - a. If the measured actuator force for both the HV-851 A&B valves is less than 10,000 lb<sub>f</sub>\*, the unit may be returned to power.
  - b. If the measured actuator force of either HV-851 A or B is between 10,000 and 22,000 lb<sub>f</sub>, the Hot SIS test for both valves shall be repeated to again determine required opening force and available margin. The prediction will assume a straight line extrapolation from the following equation:

$$T = \frac{(22,000 - F_2)}{(F_1 - F)/T_L}$$

where  $F_1$  = measured actuator force from the first Hot SIS test during the current surveillance test (lb<sub>f</sub>)

$F_2$  = measured actuator force from the second Hot SIS test during the current surveillance test (lb<sub>f</sub>)

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\*Upon receipt of satisfactory data from continuing testing and analysis, the NRC staff will consider a request from Southern California Edison Company to change this number to more accurately reflect existing conditions.

$T_L$  = time (in days) since the last surveillance testing

$F$  = the actuator force from the previous surveillance test ( $lb_f$ )\*

If the calculated value of  $T$  does not exceed 92 days, the next surveillance test must be performed before  $T$  days had elapsed.

- c. If the measured actuator force of either HV-851 A or B is greater than 22,000  $lb_f$ , the valve(s) shall be declared inoperable. Test results shall be reported to the NRC along with proposed corrective actions and NRC approval obtained prior to returning the unit to service.

- 2. The first test shall be performed not less than 14 days nor more than 21 days following return to power from the current outage which began September 3, 1981.

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\*For the first surveillance test, the value of  $F$  shall be the average actuator force of HV-851 A&B valves from pre-operation testing (3135  $lb_f$ ). All subsequent surveillance testing shall assume the  $F_2$  value from the previous surveillance test for each valve. If an  $F_2$  was not required during the previous surveillance test, the  $F_1$  value for each valve shall be assumed.