

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,) DOCKET NO. 50-206
Possess, and Use a Utilization Facility as)
Part of Unit No. 1 of the San Onofre Nuclear) Amendment No. 169
Generating Station)

SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC
COMPANY, pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 169.

This amendment consists of Proposed Change No. 208 to Provisional
Operating License No. DPR-13. Proposed Change No. 208 modifies the Technical
Specifications incorporated in Provisional Operating License No. DPR-13 as
Appendix A.

Proposed Change No. 208 is a request to revise Technical
Specification 3.5.1, "Reactor Trip System Instrumentation," to include an
informational footnote which indicates the intermediate range channel startup
rate circuit is enabled at $10^{-4}\%$ reactor power. This revision reflects a
modification that was done to the intermediate range channels circuit on the
newly installed NIS. The modification should preclude spurious reactor trips
and startup rate rod stops during the plants power ascension.

In the event of conflict, the information in Amendment Application
No. 169 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. 208, 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.

Subscribed on this 11th day of April, 1989.

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 April, 1989.

Carol A. Gomez
Notary Public in and for the County of
Los Angeles, State of California



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By:

James A. Beoletto

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that a copy of Amendment Application No. 169 was served on the following by deposit in the United States Mail, postage prepaid, on the 11th day of April, 1989.

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DESCRIPTION AND SIGNIFICANT HAZARDS CONSIDERATION
ANALYSIS OF PROPOSED CHANGE NO. 208 TO THE
TECHNICAL SPECIFICATIONS PROVISIONAL OPERATING
LICENSE NO. DPR-13

This is a request to revise Specification 3.5.1, "Reactor Trip System Instrumentation," of the Appendix A Technical Specifications for San Onofre Nuclear Generating Station, Unit 1.

DESCRIPTION OF CHANGE

Technical Specification 3.5.1, "Reactor Trip System Instrumentation," provides the limiting conditions for operation and the action statements for the reactor trip instrumentation in Table 3.5.1-1. Proposed Change No. 208 revises Table 3.5.1-1 to include a footnote in the applicable mode for the Intermediate Range, Neutron Flux. Table 3.5.1-1 indicates the Intermediate Range, Neutron Flux is required to be operable in Modes 1 and 2. The revision as proposed herein will include a footnote on Mode 2 for the Intermediate Range, Neutron Flux. The footnote will indicate that the high startup rate trip and high startup rate rod stop for the Intermediate Range channels will be enabled upon reaching a reactor power level of $10^{-4}\%$. Although not credited in any accident analyses, these protective circuits are considered fully capable of performing their intended functions in Mode 2 when enabled at $10^{-4}\%$ reactor power.

EXISTING TECHNICAL SPECIFICATIONS

See Attachment 1

PROPOSED TECHNICAL SPECIFICATIONS

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 an additional footnote for the Intermediate Range, Neutron Flux mode applicability in Table 3.5.1-1 of Specification 3.5.1 does not represent a 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 for 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.

During the Cycle 10 refueling outage, which began in November 1988, the Nuclear Instrumentation System (NIS) was replaced. An amendment application dated April 15, 1988 including the technical specification changes required for the replacement and the safety review for the new NIS. The NRC issued Amendment No. 117 on December 13, 1988 which approved the installation of the new NIS and the associated technical specifications.

Once installed, the new NIS exhibited a noise problem at the low power levels of the intermediate range channels. This affected the high startup rate reactor trip such that spurious trips would be generated during power ascension. In order to eliminate the potential for these trips at the low power levels, the point on the intermediate range circuit where the high startup rate reactor trip is enabled was raised from the 10^{-7} % power level to the 10^{-4} % power level. This change results in the high startup rate reactor trip and high startup rate rod stops being enabled once the reactor power level reaches 10^{-4} % power. Between 10^{-7} % power and 10^{-4} % power the high startup rate reactor trip and rod stop would not be enabled.

As indicated in the April 15, 1988 submittal, the intermediate range channel provides post-accident monitoring capability with indication from 10^{-7} % to 200% reactor power. This range satisfies the Regulatory Guide 1.97 requirements. This channel also provides the high startup rate reactor trip, high startup rate rod stop and displays reactor power or count rate, and startup rate. The intermediate range channels provide reactor protection during startup.

The accident evaluation performed by Westinghouse, and documented in the Safety Review Report for the NIS, indicates the high startup rate trip as provided by the intermediate range channels is not required to mitigate any of the non-LOCA events. It is identified as providing a protective function for the Uncontrolled Rod Withdrawal From Subcritical event in Section 3.2.2.1 of the Safety Review Report. However, the event is analyzed conservatively assuming that the protection of the core is provided by the overpower reactor trip at 118% power on the power range channel. Detailed information on this event is discussed in Section 15.8.1, Control Rod Withdrawal From Subcritical, of the Updated Final Safety Analysis Report (UFSAR). It also indicates that during this event rod withdrawal will be prevented by the high startup rate rod stops from either the source range or intermediate range channels. Additional protection is provided by the high startup rate reactor trip from the intermediate range channels. Reactor trip is also provided by the power range channels. Actuation of any of these functions would prevent core damage. As previously indicated, the accident analysis conservatively assumes the reactor protection is provided by the power range channels.

Although not credited in any accident analyses, the protective functions of high startup rate rod stop and high startup rate reactor trip are available and capable of performing their intended function in Mode 2 when enabled at 10^{-4} % reactor power. The accident analysis as discussed in the UFSAR and evaluated by Westinghouse in the Safety Review Report are not affected by this change since these protective functions are a backup and are not credited with the accident analysis. Realistically, these functions will still actuate prior to the reactor overpower trip thus providing reactor protection and control earlier during the control rod withdrawal event.

ANALYSIS

Conformance of the proposed changes to the standards for a determination of no significant hazard 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 change has no affect on the accidents analyzed in the UFSAR. The modification of the startup rate circuit impacts the high startup rate rod stop and high startup rate reactor trip functions by enabling them at a higher point on the intermediate range channel power range. This in effect could cause the functions to be actuated at a later time. This does not impact accident probabilities since these functions are of a mitigative nature providing reactor core control and protection during transients and accidents. This modification also has no affect on the accident analysis, particularly the Control Rod Withdrawal From Subcritical, since these functions are not credited. These functions will still be actuated sooner than the reactor trip on overpower, the credited trip for the Control Rod Withdrawal From Subcritical accident. Therefore, the accident probabilities and consequences are not affected by this change.

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

The modification associated with this proposed change revises the startup rate circuit for the intermediate range channels such that the protective functions are enabled at 10⁻⁴% reactor power versus the previous 10⁻⁷% reactor power. The protective functions, high startup rate rod stop and high startup rate reactor trip, provided by the intermediate range channels are still available and will function as they did previously. However their time for actuation may be delayed. This modification does not result in a new accident since these functions are of a mitigative nature and provide reactor core protection and control. A different kind of accident is not created since these functions are not credited in any of the accident analyses. In the case of the Control Rod Withdrawal From Subcritical, these functions are a back-up to the reactor overpower trip. They will still actuate well before the overpower trip occurrence at 118% reactor power providing reactor core protection. Therefore, a new or different kind of accident from any previously evaluated is not created.

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

RESPONSE: No

The modification associated with this change revises the startup rate circuit for the intermediate range channels by moving it up to $10^{-4}\%$ reactor power. The circuit was previously enabled at $10^{-7}\%$ reactor power. This change affects the operational margin to a small degree since the protective functions provided by the intermediate range channels may be actuated at a later time. As previously indicated this has no affect on the accident analyses since these protective functions are not credited. Therefore, the safety margins associated with the accident analyses are not affected. As indicated in the UFSAR in Figure 15.8-1 the protective function, overpower trip, for the Control Rod Withdrawal From Subcritical, occurs at 17.5 seconds. This timing is not affected by the change since the high startup rate rod stop or the high startup rate trip would have still been actuated well before that time. Therefore, the margin of safety is not affected by this change.

SAFETY AND SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the preceding analysis, it is concluded that: (1) Proposed Change No. 208 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 Specifications

Attachment 2 - Proposed Specifications

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