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May 14, 1985

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Director, Office of Nuclear Reactor Regulation
Attention: Mr. J. A. Zwolinski, Chief
Operating Reactors Branch No. 5
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Generic Letter 83-28: Required Actions Based on Generic
Implications of Salem ATWS Events
San Onofre Nuclear Generating Station
Unit 1

- References: (1) Letter from J. A. Zwolinski, NRC, to K. P. Baskin, SCE,
Dated November 28, 1984
- (2) Letter from M. O. Medford, SCE, to W. A. Paulson, NRC,
Dated October 1, 1984

Reference (1) requested additional information regarding the Periodic Maintenance Program for Reactor Trip Breakers (Item 4.2.1) and Trending of Reactor Trip Breaker Parameters to Forecast Degradation of Operability (Item 4.2.2) as delineated in the subject Generic Letter. Specifically, Reference (1) listed 19 verifications, inspections, and tests to be performed on either a semi-annual or refueling interval and requested that we confirm that these are, or will be, (1) included in our preventative maintenance procedures, and (2) performed at the frequencies indicated.

We hereby confirm that each of the nineteen items identified in Reference (1) is included in our preventative maintenance procedures with the exception of "breaker response time for undervoltage trip."

Response time testing of the undervoltage trip attachments for San Onofre Unit 1 DB-50 Reactor Trip Breakers (RTB's) is not performed. The Westinghouse Owners Group has concluded that response time testing of the DB-50 reactor trip breakers is unnecessary, as slow response time has not been identified as a problem with these breakers. Also, trip force and breaker response time for undervoltage trip are considered to be predictive parameters that provide the

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same information on breaker degradation. Since trip force is already being trended in the San Onofre Unit 1 maintenance program, the inclusion of response time testing of the undervoltage trip would be considered redundant and unnecessary. Item 4.5.3 of the subject Generic Letter states that considerations of reduced redundancy during testing and component "wear-out" caused by the testing should be considered when striving to achieve high reactor trip system availability. Therefore, performing both the trip force and breaker response time for undervoltage trip, which provide the same information, would be contrary to this reduced redundancy philosophy. Thus, response time testing of the undervoltage trip attachments is not performed and is not considered necessary for the reliable operation of the breakers.

Preventative maintenance on the suggested semi-annual interval is not warranted at this time based on the following considerations;

- 1) performance of the preventative maintenance actions on all breakers will require shutdown of the unit for approximately 4 to 5 days;
- 2) the reliability of the San Onofre Unit 1 RTB's has been demonstrated by over 15 years of operation without a single failure to function on demand; and
- 3) the increased vulnerability to operator error, safety system malfunction, or actuation associated with plant shutdown and startup may offset the minor, if any, increase in breaker reliability resulting from such maintenance.

Although it was indicated in Reference (2) that preventative maintenance and testing would be performed on a semi-annual basis, further consideration of the impact of the entire program on unit operations has resulted in our concluding that RTB maintenance and testing on a refueling interval will increase the reliability of these breakers beyond that already demonstrated without adversely affecting plant operation. Preventative maintenance in conformity with the Westinghouse recommendations was performed on all breakers just prior to the Unit's return to service in November 1984 and was performed again during the unplanned outage from May 1 to 9, 1985. No degradation or deficiencies were discovered during these periods that would have prevented the breakers from performing their safety related function. Therefore, it is our intention to conduct future maintenance and testing on a refueling interval.

In regard to the "Trending of Reactor Trip Breaker Parameters to Forecast Degradation of Operability," (Item 4.2.2), SCE will not include "breaker

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response time for undervoltage trip" as indicated above. "Undervoltage trip attachment dropout voltage, trip force, and breaker insulation resistance" will be included along with other information ultimately determined to provide reliable indication of breaker degradation consistent with Westinghouse Owners Group recommendations resulting from breaker life cycle testing.

The technical criteria used for evaluating trend data is the Westinghouse program for DB-50 Reactor Trip Switchgear, historical information gathered from past maintenance activities and the Westinghouse Owners Group recommendations. The analysis is performed as new trend data is obtained for comparison. The data obtained is reviewed by Maintenance Supervisory personnel to ensure acceptance criteria are met. During this review, should the Maintenance Supervisory personnel identify any parameter outside its acceptance criteria, further investigation and corrective action will be initiated. Information derived from the analysis is used as a basis for purchasing spare parts and replacing components that show sign of degradation. Accordingly, the technical criteria to be used for evaluating trend data, the frequency of trend data analyses, and effect of its results on periodic maintenance will be consistent with Westinghouse Owners Group recommendations where appropriate.

If you have any questions or require additional information, please let me know.

Very truly yours,

M. O. Medford