UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

GENERIC IMPLICATIONS OF SALEM ATWS EVENT

GENERIC LETTER 83-28, ITEM 4.5.1

SAN ONOFRE NUCLEAR GENERATING STATION - UNIT 1

DOCKET NO. 50-206

I. INTRODUCTION

On February 25, 1983, during startup of the Salem Unit 1 plant, both circuit breakers in the Reactor Trip System failed to open automatically upon receipt of a valid trip signal. As a result of that event, the NRC's Office of Inspection and Enforcement issued IE Bulletin 83-01 which described the event and requested specified prompt corrective and preventive actions by licensees. As the cause and ramifications of the event were more clearly developed, the NRC's Office of Nuclear Reactor Regulation issued on July 8, 1983, Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." This letter addressed issues related to reactor trip system reliability and general management capability. The letter was sent to all licensees of operating reactors, applicants for operating licenses and holders of construction permits.

One of the areas of reactor trip system reliability considered in Generic Letter 83-28 (GL 83-28), is that of system functional testing. This is identified in GL 83-28 as Item 4.5.1. This evaluation addresses the acceptability of the response to this item provided by the Southern California Edison (the licensee) for San Onofre Nuclear Generating Station, Unit 1 (the facility).

II. EVALUATION

Item 4.5.1 of GL 83-28 states as follows:

> "On-line functional testing of the reactor trip system, including independent testing of the diverse trip features, shall be performed on all plants.
>
> "1. The diverse trip features to be tested include the breaker undervoltage and shunt trip features on Westinghouse...plants."

In addition, Item 4.5.1 states that licensees and applicants should submit a statement confirming that this action has been completed.

By letter dated November 28, 1983, the licensee responded to a number of the items contained in GL 83-28, including Item 4.5.1. In response to this item, the licensee stated both the undervoltage and shunt trip functions of the reactor trip breakers were tested in-place, and that the tests involved the use of both automatic and manual signals generated by the Reactor Protection System. These tests, however, are not performed with the reactor on-line, but, rather, during the annual maintenance

period. The licensee states this is necessary because the plant was not designed to permit on-line reactor trip breaker functional testing.

Based on this response, it is noted plants not designed to permit on-line functional testing are addressed by GL 83-28 Item 4.5.2 - which states:

> "2. Plants not currently designed to permit periodic on-line testing shall justify not making modifications to permit such testing. Alternatives to on-line testing proposed by licensees will be considered where special circumstances exist and where the objective of high reliability can be met in another way."

Therefore, because the facility is not designed to permit periodic on-line functional testing, it is more appropriately considered by Item 4.5.2 which, as noted above, specifically addresses plants currently lacking this capability.

III. CONCLUSION

Based on the foregoing, we conclude the facility does not fall within the group of facilities addressed by Item 4.5.1, but, rather within the group addressed by Item 4.5.2. Accordingly, with respect to the San Onofre Nuclear Generating Station, GL 83-28 Item 4.5.1 is closed and the subject of on-line testing of the diverse trip features will be evaluated in accordance with the provisions of Item 4.5.2. The licensee's conformance with the guidance contained in Item 4.5.2 will be the subject of a separate safety evaluation.

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Dated: November 4, 1985.