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April 30, 1982

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



Gentlemen:

Subject: Docket No. 50-206
SEP Topic III-6
Seismic Design Considerations
San Onofre Nuclear Generating Station
Unit 1

Enclosure 1 is a report which provides the results of the seismic reevaluation of the fuel storage building at San Onofre Unit 1. This report is submitted as Volume 4 of SCE's report, Seismic Evaluation of Reinforced Concrete Masonry Walls. Volumes 1, 2 and 3 of this report were submitted by letters dated January 11 and 15, 1982.

Enclosure 2 is a report which provides the results of the seismic reevaluation of the turbine building and turbine-generator pedestal. This report documents the results which were outlined in our letter dated February 9, 1982.

As discussed in the enclosed reports, modifications have been identified for the fuel storage building, the north and south extensions of the turbine building and the east and west heater platforms. The modifications to the fuel storage building consist of adding bracing to one wall and the addition of connections to two walls. Implementation of these modifications will be initiated during the current outage and, if necessary, will be completed during plant operation following the outage. However, as discussed in the enclosed report, these modifications are required to meet the reevaluation criteria and therefore restore design margins; they are not required to ensure the structural integrity of the fuel storage building. Therefore, it is concluded that San Onofre Unit 1 can continue to operate until the modifications to this structure have been implemented.

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The modifications to the north turbine building extension and west heater platform consist of the addition of structural steel bracing, foundation modifications and miscellaneous modifications as summarized in Section 5 of Enclosure 2. All of these modifications will be implemented prior to the end of the current outage.

Conceptual modifications identified for the south turbine building extension and east heater platform also consist of the addition of structural steel bracing, foundation modifications and miscellaneous modifications as summarized in Section 5 of Enclosure 2. In accordance with our letter dated July 7, 1981, we have evaluated the conceptual modifications to these structures to determine whether they are likely to be impacted by other SEP evaluations. It is concluded that there is a high potential that these modifications will be impacted by the results of SEP Topics II-1.C, Potential Offsite Hazards, III-2, Wind and Tornado Loadings, and III-4.A, Tornado Missiles. In light of this, these modifications will be considered during the SEP integrated assessment. In the interim, until these modifications are implemented, we have evaluated the impact of failure of the south extension and east heater platform as a result of an earthquake on the capability to remove decay heat. In addition, this issue is the subject of separate discussions with the NRC staff and is scheduled to be resolved prior to the end of the current outage. As discussed in our letter to the NRC dated August 11, 1981, it is concluded that failure of these structures would not preclude the ability to remove decay heat. Therefore, it is concluded that San Onofre Unit 1 can continue to operate until the modifications have been implemented.

Finally, it should be noted that the analysis and conceptual modifications identified in the enclosed reports, reflect design work up to the start of the current outage. During construction, design changes are often required to account for conditions that were unanticipated or unknown prior to construction. Such conditions often include underground utilities, unanticipated interferences with existing equipment and structures, changes for ease of construction and variations in in-situ subgrade material properties. In the latter case, such a condition did occur during the current outage. The analyses and conceptual design of modifications were based on a compaction of 95% for all fill materials. However, during construction, relative densities less than this value were encountered. In the local areas where this was encountered, remedies were implemented. In addition, as with all design changes implemented during construction, the impact of soil conditions different from those assumed in the analysis will be reconciled with the analyses reported in the attached reports. Based on discussions with the NRC staff, we will reach agreement with the NRC regarding our approach to resolution of this issue prior to the end of the current outage.

If you have any questions on any of this information, please let us know.

Very truly yours,

W.P. Bush