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Honorable Nunzio J. Palladino
Chairman
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Dr. Palladino:

SUBJECT: ACRS REPORT ON THE SYSTEMATIC EVALUATION PROGRAM REVIEW OF THE SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 1

During its 304th meeting, August 8-10, 1985, the Advisory Committee on Reactor Safeguards reviewed the results of Phase II of the Systematic Evaluation Program (SEP) as it has been applied to the San Onofre Nuclear Generating Station, Unit 1. These matters were discussed also during subcommittee meetings in Washington, D. C. on November 27, 1984 and June 19, 1985. During our review, we had the benefit of discussions with representatives of the Southern California Edison Company (Licensee) and the NRC Staff. We also had the benefit of the documents referenced.

The San Onofre plant is the last to be reviewed under the SEP. The plant is in Group 2 of the SEP, which includes the five oldest plants still in operation. Construction began in 1964, and the plant has been in commercial operation since 1968 under a Provisional Operating License. The San Onofre plant utilizes a 3-loop Westinghouse reactor. It has an electrical capacity of about 430 megawatts.

In our report dated May 11, 1982 on the SEP evaluation of the Palisades Plant, we commented on the objectives of the SEP and the extent to which they had been achieved. Our review of the SEP in relation to the San Onofre plant has led to no changes in our previous findings regarding the extent to which the objectives of the SEP have been achieved and the manner in which the NRC Staff has conducted its review and assessment.

Of the 137 topics to be addressed in Phase II of the SEP, 24 were not applicable to the San Onofre plant and an additional 24 were deleted because they were being reviewed generically under either the Unresolved Safety Issues Program or the Three Mile Island Action Plan. Of the 89 remaining topics addressed in the NRC Staff's review, 53 were found to meet current NRC criteria or to be acceptable on another defined basis. We have reviewed the assessments and conclusions of the NRC Staff relating to these topics and have found them appropriate.

The 36 remaining topics involved 86 issues relating to areas in which the San Onofre plant did not meet current criteria. These issues were addressed by the Integrated Plant Safety Assessment Report (IPSAR) and various resolutions have been proposed.

For 41 of the issues included in the Integrated Assessment, the NRC Staff has concluded that no backfit is required. We concur.

For 12 issues, resolution has been achieved by changes to the Technical Specifications or to procedures. We find these acceptable.

For 5 issues, relating to 3 topics, resolution required backfits involving plant systems or components. The structural or hardware backfits resulting from the Seismic Upgrade Program are not included in this number.

As has been the case for the other plants in the SEP, the Integrated Assessment had not been completed for a number of issues at the time the IPSAR was published; in this case, 28 issues relating to 13 topics. For each of these, the Licensee has agreed to provide the results of studies, analyses, and evaluations that are needed by the NRC Staff for its assessments and decisions. All of these issues are of such a nature that hardware backfits may be required for their resolution. The resolution of these issues will be addressed by the NRC Staff in a supplemental report.

One outstanding issue relates to the seismic capability of the plant. As part of the SEP, the seismic design of the plant has been reevaluated for a safe-shutdown earthquake having a zero-period ground motion input of 0.67g, comparable to that for Units 2 and 3 at the same site. The seismic upgrading of the plant performed so far ensures that the plant can reach hot shutdown in the event of a 0.67g earthquake. The necessary analyses and plant modifications, if needed, to achieve cold shutdown and to provide accident mitigation will be completed by the end of the next refueling outage. We find this satisfactory.

Use was made of a limited Probabilistic Risk Assessment (PRA) in connection with the NRC Staff's evaluations. Since a plant-specific PRA was not available for the San Onofre plant, the techniques used were similar to those used in similar circumstances for other plants in the SEP. As in those other cases, we believe that the NRC Staff's use of PRA was appropriate and that suitable use was made of the results.

Our conclusions regarding the SEP review of the San Onofre plant are as follows:

1. The SEP has been conducted in such a manner that the stated objectives have been achieved for the most part for the San Onofre plant.

2. The actions taken thus far by the NRC Staff in its SEP assessment of the San Onofre plant are acceptable.

3. The ACRS will defer its review of the full-term operating license for the San Onofre Nuclear Generating Station, Unit 1 until the NRC Staff has completed its actions on the remaining SEP topics, including the seismic upgrade, and the USI and TMI Action Plan items.

Sincerely,

David A. Ward
Chairman

References:

1. U. S. Nuclear Regulatory Commission, "Integrated Plant Safety Assessment Systematic Evaluation Program, San Onofre Nuclear Generating Station, Unit 1," USNRC Report NUREG-0829, dated April 1985
2. Safety Evaluation Reports for topics for the San Onofre SEP (3 volumes) transmitted to D. A. Ward, Chairman, ACRS, from J. C. Wolinski, NRC, dated April 27, 1985
3. U. S. Nuclear Regulatory Commission, "Safety Evaluation Report, Return to Service Plan, San Onofre Nuclear Generating Station, Unit 1," dated November 1984

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