



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

*Sanofre*

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November 20, 1979

Hyer Bender, Chairman, San Onofre Subcommittee

SAN ONOFRE (#2 and #3) SEISMOLOGY MEETING (Washington, D.C.;  
November 16, 1979)

Ref: Seismic Meeting on San Onofre, Sept. 1978  
(Attachment 1)

The NRC Staff met with the applicants, the applicant's consultant (Woodward-Clyde), the United States Geological Survey, and NRC consultants to discuss the specific earthquake magnitude and ground motion acceleration attributable to the Hypothesized Offshore Zone of Deformation (OZD). In 1972 the Atomic Energy Commission and its consultants agreed to a 2/3 g design basis earthquake for the Safety Evaluation Report (SER). A conservatively large earthquake was postulated for a fault 5 miles offshore from the site. No earthquake magnitude, however, was estimated for the OZD. As of August 1979, Units 2 and 3 were respectively 74% and 60% complete and scheduled for commercial operation in 10/80 and 1/82.

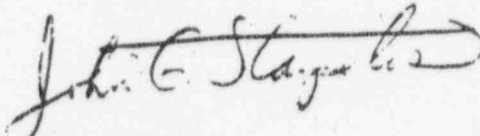
The NRC Staff is preparing questions on a report prepared by the applicant's consultant (Woodward-Clyde, "Report on the Evaluation of Maximum Earthquake and Site Ground Motion Parameters associated with the Offshore Zone of Deformation, San Onofre Nuclear Generating Station," June 1979; a summary is included in the attachments, a full copy has been requested).

This meeting stressed the following points to be addressed in the applicant's report:

1. Slip rate is based on gathering historical data.  
Why can we rely on this data? What is the sensitivity of slip rate to earthquake magnitude? How would the discovery of new data points effect Woodward-Clyde's tectonic model? Sensitivity analysis should be employed.
2. The probability of seeing various g values at the plant should be evaluated. The recurrence of different magnitudes of earthquake and their effect or challenge to the plant should be evaluated.
3. The NRC does not have an approved tectonic model for the site area.

4. Woodward-Clyde's seismic analysis should include all data bases even though the quality of foreign information may require further evaluation.
5. How does the maximum magnitude earthquake mentioned in the Woodward-Clyde report relate to the requirements of 10 CFR 100 (Appendix A)?

The next meeting on this subject is scheduled for the week ending December 21, 1979.



John Stampelos  
ACRS Fellow

Attachments:

1. Summary of Seismic Meeting, Sept. 1978
2. Summary of the Woodward-Clyde Report
3. Program Development Plans
  - a. Development of maximum magnitude for the OZD
  - b. Development of site ground motion parameters
4. Approximate relationships between intensity, acceleration and magnitude for earthquakes
5. Faulting Offshore of Southern California (2 page map)

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