

2/18/81

RELATED CORRESPONDENCE



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
SOUTHERN CALIFORNIA EDISON COMPANY,)	Docket Nos. 50-361 OL
ET AL.)	50-362 OL
)	
(San Onofre Nuclear Generating Station))	
Units 2 and 3))	

INTERVENOR, FOE ET AL.,
INTERROGATORIES TO N.R.C. STAFF

Intervenors Friends of the Earth, et al, hereby requests that the N.R.C. Staff, pursuant to 10 CFR §2.740(b) answer, separately and fully, in writing under oath or affirmation, the following interrogatories within fourteen (14) days after service hereof. Each response to the interrogatories below shall be under oath or affirmation of the individual(s) who contributed thereto. For all references requested in these interrogatories, identify them by author, title, date of publication and publisher, if the reference is published, and if not published, identify the document by the author, title, the date it was written, the qualifications of the author relevant to this proceeding, and where a copy of the document may be obtained.

The interrogatories set forth below are to be considered N.R.C. Staff's continuing obligation. Accordingly, if, after the N.R.C. Staff has answered these interrogatories, additional information comes to their attention with respect to one or more of the answers the answers should be amended in a timely manner to provide such additional information.

INSTRUCTIONS AND DEFINITIONS

For purposes of these Interrogatories and your responses thereto, the following definitions and instructions shall apply:

(a) The term "N.R.C.", "You" and "Your" refers to the United States Nuclear Regulatory Commission Staff.

(b) The term "person" means any natural person and any private or public entity of any nature, including, without limitation, corporations, firms, partnerships, sole proprietorships, associations, groups, organizations, trusts and estates.

(c) The term "document" means:

- (1) The original, or
- (2) If the original is not in your custody or under your control, then a copy thereof.

(d) As used herein unless the context otherwise requires, the singular number includes the plural and the plural includes the singular; the masculine gender includes the feminine, and the feminine includes the masculine.

(e) When you are requested to "identify" any document, you shall include in your response a description sufficient to satisfy the "reasonable particularity" requirement found in Title 10, Part 2, Section 2.741(c) of the Code of Federal Regulations, including without limitation, the following information with respect thereto:

- (1) The nature of the document;
- (2) Its date;
- (3) The names of its addressor(s) and addressee(s), if any;
- (4) The name(s) of the person(s) who prepared it;
- (5) The name(s) and address(es) of the present custodian(s) of the original and any copies thereof; and

(6) A summary of its contents.

In lieu of providing the information specified in Paragraph (3), Items (1) - (6), you may attach to your responses to these Interrogatories a true copy of such document, identifying the Interrogatory to which it is responsive and stating in your answer only such of the information specified in Paragraph (e), Items (1)-(6) as does not clearly appear on the face of such document.

If you claim a document is privileged or attorneys' work product, describe the same generally and state all facts upon which you base the claim of privilege or the claim such document constitutes work product.

(f) When you are requested to "identify" any person, you shall set forth the full name and last known business address and employer of such person you are asked to identify.

(g) The term "expert" refers to a person who by virtue of his knowledge, skill, experience, training or education has acquired a scientific, technical or specialized knowledge which can assist the Nuclear Regulatory Commission Licensing Board in understanding the evidence or determining a fact, opinion, or scientific theory relevant to an issue in this proceeding.

(h) When you are requested to "identify" an "expert" as that latter term is defined in Paragraph (g) above, you shall set forth the full name and last known business address, academic affiliations, and present employer of each such "expert" you are asked to identify.

(i) In answering these Interrogatories, you shall furnish all information available to you, your respective agents, employees, investigators, representatives and attorneys, and not merely such information as is known from personal knowledge.

(j) The term "SONGS 2 and 3" refers to the San Onofre Nuclear Generating Station, Units 2 and 3.

(k) The term "SCE" refers to the Southern California Edison Company.

(l) The term "FSAR" refers to the "Final Safety Analysis Report, San Onofre Nuclear Generating Station, Units 2 and 3" which intervenors believe is currently available to the public in the Public Documents Room of the Mission Viejo Public Library.

(m) Where the Interrogatories ask whether N.R.C. has "analyzed" a document or subject, intervenors define "analyze" to be where N.R.C. has reviewed the document or subject in the context of SONGS 2 and 3 and have submitted a written report of that review.

(n) Offshore Zone of Deformation ("OZD") as used in this proceeding is a hypothesized zone of deformation which as defined by the United States Geological Survey ("USGS") consists of the Newport Inglewood Zone of Deformation, the South Coast Offshore Zone of Deformation and the Rose Canyon Fault Zone.

INTERROGATORIES

INTERROGATORY NO. 1

Define the following terms:

- (a) structurally related
- (b) wrench fault
- (c) wrench fault system
- (d) wrench fault tectonics
- (e) active tectonic system
- (f) branch or splay
- (g) seismic gap

- (h) en echelon
- (i) plate boundary

INTERROGATORY NO. 2.

For each of the terms listed in Interrogatory No. 1,

- (a) Identify each and every document, written authority or communication upon which you rely in defining each term;
- (b) Identify each and every person, expert or otherwise, upon whom you rely in defining each term; and
- (c) Identify any writings, opinions, or testimony of the person(s) you have listed in Interrogatory 2(b) upon which you rely in defining each term.

INTERROGATORY NO. 3.

Do you contend that the Cristianitos Fault does not extend southward for a distance greater than 6000 feet offshore from its coastal expression? If so,

- (a) State each and every fact upon which you base this contention;
- (b) Identify each and every document or communication upon which you base this contention;
- (c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and
- (d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 4.

What do you contend is the minimum age of last displacement on the Cristianitos Fault?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 5

Do you contend that the Cristianitos Fault is not a "capable fault" If so,

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 6.

Do you contend that the OZD is the controlling geologic structure for seismic design of SONGS 2 and 3? If so:

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 7.

What do you contend is the maximum magnitude earthquake that could occur on the OZD?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing

before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 8.

What do you contend is the maximum magnitude earthquake that could occur on the geologic structural relationship between the OZD and the Cristianitos Zone of Deformation?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 9.

What do you contend is the minimum age of last displacement on the South Coast Offshore Zone of Deformation portion of the OZD?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention

INTERROGATORY NO. 10.

What do you contend is the minimum age of last displacement on the Newport Inglewood Zone of Deformation portion of the OZD?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 11.

What do you contend is the minimum age of last displacement on the Rose Canyon Fault Zone portion of the OZD?

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions or testimony you base this contention; and

(d) Identify each and every person expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 12.

Is it your contention that the postulated zone of deformation which extends from the coastal exposure of the Cristianitos Fault toward the OZD dies out before reaching the OZD? If so:

(a) State each and every fact upon which you base your contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise, whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 13.

Do you contend that there is not a structural relationship between the Cristianitos Fault and the OZD? If so,

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person expert or

otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 14.

Do you contend that the OZD does not extend south of the Rose Canyon Fault Zone? If so

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention or on whose writings, opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 15.

Do you contend that there is no structural relationship between the Rose Canyon Fault Zone and the Vallecitos Fault in Baja, California? If so.

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 16.

Do you contend that there is not a structural relationship between the Rose Canyon Fault Zone and the San Miguel Fault in Baja, California? If so,

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings opinions, or testimony you base this contention; and

(d) Identify each and every person expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 17.

Do you contend that there is not a relationship between the OZD and the San Andreas. If so

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication

upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention or on whose writings opinions or testimony you base this contention; and

(d) Identify each and every person expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 18.

Do you contend that .67 g is the proper design acceleration value for SONGS 2 and 3?

INTERROGATORY NO. 19.

If your answer to Interrogatory No. 18 is Yes.

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of

the factual basis or bases for this contention, or on whose writings opinions, or testimony you base this contention; and

(d) Identify each and every person, expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 20.

Do you contend that there is no possibility of ground displacement within the plant site? If so

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings opinions, or testimony you base this contention; and

(d) Identify each and every person expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds, for each opinion to which the witness is expected to testify; and

(e) Identify each and every event upon which you base this contention.

INTERROGATORY NO. 21.

Have you contracted with or contacted any consultants to analyze any aspect of the Imperial Valley earthquake of October 15 1979? If so.

(a) Identify each and every consultant who has conducted such analysis on your behalf;

(b) Identify each and every document, writing or acommunication arising out of the analysis performed by your consultants on the Imperial Valley earthquake which you expect to use at the hearing on the seismic contention before the Atomic Safety and Licensing Board;

(c) Summarize the substance of the findings and/or conclusions of your consultants which they have derived from their analysis of the Imperial Valley earthquake

(1) with respect to SONGS 2 and 3

(2) with respect to any other nuclear power plant site in California; and

(d) Summarize the factual and theoretical bases as well as any other grounds upon which your consultants base their

findings and/or conclusions on the Imperial Valley earthquake

(1) with respect to SONGS 2 and 3

(2) with respect to any other nuclear power plant site in California.

INTERROGATORY NO. 22.

Do you contend that the Cristianitos Fault is only about 32 kilometers (20 miles) in length? If so

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention or on whose writings opinions, or testimony you base this contention; and

(d) Identify each and every person expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis, as well as any other grounds for each opinion to which the witness is expected to testify.

INTERROGATORY NO 23.

Do you agree that the OZD is located 7 kilometers

offshore as described by Dr. Gary Greene and Dr. Michael Kennedy in their report to the NRC in August 1980? If you do not agree state the basis for your disagreement including all documents on which you rely and identify all expert witnesses on whom you rely and the substance of their expected testimony.

INTERROGATORY NO 24.

Do you contend that the Cristianitos Zone of Deformation's structural relationship with the OZD is not the controlling geologic structure for the seismic design of SONGS 2 and 3? If so

(a) State each and every fact upon which you base this contention;

(b) Identify each and every document or communication upon which you base this contention;

(c) Identify each and every person with knowledge of the factual basis or bases for this contention, or on whose writings, opinions or testimony you base this contention; and

(d) Identify each and every person expert or otherwise whom you expect to call as a witness at the hearing before the Atomic Safety and Licensing Board in support of this contention, and as to each potential witness so identified provide the following information:

(i) State the substance of the facts and opinions to which you expect the witness to testify;

(ii) Summarize the factual and theoretical basis as well as any other grounds for each opinion to which the witness is expected to testify.

INTERROGATORY NO. 25

At the time of the initial selection of the San Onofre site for the construction of Nuclear Power plants, including Units 2 and 3, what data base existed to determine the suitability of the site and to determine or predict the ground motions that could occur at the site and to determine the S.S.E.

INTERROGATORY NO. 26

Does the staff agree that since the issuance of the construction permit for SONGS 2 and 3 that there has been a tremendous increase in scientific understanding of plate tectonics and that because the SONGS 2 and 3 site is within the plate tectonic boundary zone that this new information should be considered in estimating the Safe Shutdown Earthquake and response spectra for SONGS 2 and 3?

INTERROGATORY NO. 27

If your answer to question 26 is yes, set forth with particularity how this increased scientific understanding was integrated and utilized in determining the ground motions, the response spectra and the Safe Shutdown Earthquake for SONGS 2 and 3.

INTERROGATORY NO. 28.

Did the N.R.C. staff provide a formal written notice to the A.S.L.B. or to the Commissioner in the context of the Construction Licensing Proceedings for Songs Unit Two and Three that in October 1967, the Department of the Interior published a report (hereinafter referred to as the Bolsa Island report) which would require the Bolsa Island reactor to be designed for an S.S.E. of magnitude 8.0 on the Newport-Inglewood Fault Zone. If the answer is yes, cite the precise reference where this notice was given.

INTERROGATORY NO. 29

Was the Bolsa Island Report or the contents of said report introduced as evidence in the Construction Licensing hearings for SONGS 2 and 3? If not, why not?

INTERROGATORY NO. 30

Was the N.R.C. staff or the applicant aware of the existence of the Bolsa Island Report at the time of the Construction Licensing hearing for SONGS 2 and 3?

INTERROGATORY NO. 31

If the N.R.C. was aware of the existence of the Bolsa Island report at the time of the Construction Licensing did they inform the Intervenor of its existence?

INTERROGATORY NO. 32

Does the N.R.C. staff admit that the Bolsa Report is relevant evidence and is admissible as evidence in the Operating Licensing hearings regarding SONGS 2 and 3?

If the staff does not so admit state with particularity including any legal arguments you will rely on as to why the Bolsa Island report is not admissible evidence in the SONGS Operating License hearings.

INTERROGATORY NO. 33

Has the N.R.C. staff, or any of their consultants studied, investigated or analyzed the ground motions at the site of SONGS 2 and 3 that would result from a magnitude 8.0 earthquake on the Newport-Inglewood Fault Zone?

INTERROGATORY NO. 34

If the answer to the foregoing interrogatory is in the affirmative, state:

- a) the name, address, capacity, and occupation of each person making such study or investigation;
- b) the date or dates of such study or investigation;
- c) whether any reports of such person or persons were reduced to writing;
- d) in whose possession or custody such reports presently repose;
- e) whether you will make such reports available to intervenors to inspect and copy without the necessity of a formal motion to produce; and
- f) a summary of the findings of each study and investigation and the basis for such findings.

INTERROGATORY NO. 35

If the N.R.C. staff or its consultants have not performed such a study, do they plan to do so prior to the Operating Licensing hearings?

If you do not plan such a study, set forth your reasons for not performing such a study.

INTERROGATORY NO. 36

In light of the A.S.L.B. ruling regarding Summary Disposition of the dewatering cavity contention, does the Staff contend that there is no possibility that the plant design will not withstand an earthquake on the O.Z.D. that is greater than a magnitude 6.5 and/or ground motion in excess of .67g?

INTERROGATORY NO. 37

What evidence does the NRC Staff have that personnel at SONGS 2 and 3, during future operations, could perform necessary

emergency procedures during and following a severe earthquake, when their lives are being threatened by the circumstances?

INTERROGATORY NO. 38

Does the NRC Staff agree that personnel would be more likely to make mistakes in procedures during an earthquake scenario than under "normal accidental conditions?"

INTERROGATORY NO. 39

What psychological studies can the NRC Staff cite that support their arguments that operating personnel could respond effectively to Earthquake circumstances at SONGS 2 and 3, during a threat to their safety?

INTERROGATORY NO. 40

What peak and effective ground accelerations (g values) were the spent fuel rod pools at SONGS Units 2 and 3 designed and built for?

INTERROGATORY NO. 41

Provide the names and qualifications of the AEC-NRC Staff geologists, seismologists, and geophysicists who were involved in any way in the analysis of the San Onofre site as a suitable location for constructing several nuclear reactors (including SONGS 2 and 3) during the original siting analysis and decision-making by the AEC Staff between the February 1, 1963 application from Southern Cal. Edison for a permit to construct a group of reactors (then projected to eventually include five reactors, including SONGS 2 and 3) and the 1964 issuance of a construction permit by the AEC for the first reactor of the group.

INTERROGATORY NO. 42

Provide the names and qualifications of the AEC Staff geologists, seismologists, and geophysicists who were involved in the AEC Staff analysis of geo-seismic hazards at the San Onofre site and preparation of the SER during the Operating License Review period from 1965 to 1968.

INTERROGATORY NO. 43

Provide the names and qualifications of any independent consultants in the fields of geology, seismology, and geophysics, or USGS scientists who were requested by the AEC or NRC to analyze geo-seismic hazards in the San Onofre site selection process between the February, 1963 application by SCE to construct a group of nuclear reactors including SONGS 2 and 3 at the San Onofre site and the 1973 issuance by the AEC of the construction permit for the second and third reactors of the planned group.

INTERROGATORY NO. 44

Is it true that the NRC's predecessor, the AEC, negotiated a formal Memorandum of Agreement with the USGS which is still the practice of the NRC Staff under current practice that limits the USGS role in analyzing the geologic and seismic hazards to a nuclear reactor site such that USGS scientists can participate in the review process "only upon specific request from the NRC" and "only to the extent and under such circumstances and constraints as are specified by the NRC"?

INTERROGATORY NO. 45

Explain and document exactly when, where, how, and who among the USGS scientists was asked to conduct research independently of the Edison Company's consultants prior to 1980, during the OL review for the SER.

INTERROGATORY NO. 46

Provide the names and qualifications of any USGS scientists who were requested by the AEC or NRC Staff to review the Edison Company's Consultants' Reports regarding earthquake hazards at the San Onofre (SONGS 2 and 3) site between the February, 1963 application by SCE for a permit to construct a group of reactors including SONGS 2 and 3 at the San Onofre site and the 1964 permit from the AEC to the Edison Company to begin construction of the first reactor of the planned group of reactors.

INTERROGATORY NO. 47

Provide the names and qualifications of any USGS scientists who have been requested by the AEC or NRC Staff to review the Edison Company's Consultants' Reports regarding earthquake hazards at the SONGS 2 and 3 site since the AEC issued the SONGS 2 and 3 Construction Permit in 1973.

INTERROGATORY NO. 48

Why has the NRC Staff never requested the USGS federally employed scientists to conduct research regarding the earthquake hazards to the SONGS 2 and 3 site that is totally independent of the Edison Company's Consultants, for example, in the way that the Department of Interior has the USGS conduct independent research on offshore regions before issuing leases and permits to the oil industry for offshore oil drilling?

INTERROGATORY NO. 49

Do you agree that in 1979 the Intervenor's requested a meeting with the NRC Staff to discuss certain new information

regarding earthquake hazards to the San Onofre reactors, and that that meeting was scheduled for March 5, 1980 to follow a March 4, 1980 meeting with the Applicants and their consultants?

INTERROGATORY NO. 50

Do you agree that on March 5, 1980, the Intervenors requested that the NRC Staff require the Applicants to conduct research offshore from the San Onofre reactor site regarding the Intervenors' hypothesis that there exists an offshore extension of the Cristianitos Fault Zone which provides a structural relationship and a new fault geometry between the Cristianitos Fault Zone and the Offshore Fault Zone (the Newport-Inglewood Fault or OZD)?

INTERROGATORY NO. 51

Do you agree that the Intervenors based their hypothesis of a new structural relationship between these two fault zones on a new map which was published in November, 1979 (which the Intervenors' showed to the NRC Staff on March 5, 1980) in a report by four USGS scientists and a CDMG marine geologist entitled: "Earthquakes and Other Perils San Diego Region" which is part of a research project being funded by the Department of Interior to study the Outer Continental Shelf for Oil Leasing information?

INTERROGATORY NO. 52

Do you agree that the authors of that map and the report had not yet been consulted by the NRC Staff about their new geological map of the region offshore from the San Onofre site but that on March 5, 1980, the NRC Staff agreed to request the

opinions of the USGS Scientists who wrote the report about whether or not the NRC should require the Applicants to conduct research offshore?

INTERROGATORY NO. 53

Do you agree that following that March 5, 1980 meeting with the Intervenors, the NRC Staff requested the Applicant to provide the Staff with copies of all of the offshore seismic reflection profiles that were available to the Applicant regarding the fault geometry offshore from the San Onofre reactors?

INTERROGATORY NO. 54

Do you agree that the NRC conducted a meeting about this issue on May 21, 1980 in Bethesda, Md., during which the Edison Company presented certain offshore profiles and interpretations of the offshore fault geometry?

INTERROGATORY NO. 55

Do you agree that during the concluding statements by the Staff to the Applicant after the Applicants' presentation, that the NRC Staff Geosciences Branch Chief Bob Jackson said (according to the transcript): "We have not had ample opportunity to review all of the data provided (by the Applicant) in the last several weeks...a lot more work needs to be done with the USGS reviewers and the staff reviewers--with USGS assistance."?

INTERROGATORY NO. 56

Do you agree that after that meeting, the NRC Staff requested the USGS scientist Gary Greene and his co-author Michael Kennedy to write a report and produce a map making use of all of the available data to review the potential

for a structural relationship between the Cristianitos and the OZD?

INTERROGATORY NO. 57

Do you agree that the Applicant agreed to conduct more seismic reflection profiles offshore and that they hired Nekton, Inc. as consultants?

INTERROGATORY NO. 58

Do you agree that the NRC consultants Greene and Kennedy produced a report, entitled "Review of Offshore Seismic Reflection Profiles in the Vicinity of the Cristianitos Fault, San Onofre, California" which was mailed to the NRC by the USGS on August 13, 1980?

INTERROGATORY NO. 59

Do you agree that the Applicants requested a meeting which was held in Bethesda, Md., on August 14, 1980, to present their consultant's (Nekton) new report and interpretations of offshore seismic reflection profiles, which were mailed to the NRC Staff on July 29, 1980, in a report entitled "Interpretive Results High Level Resolution Geophysical Survey in Selected Areas between Dana Point and Oceanside and Offshore California." prepared by the Edison Company's consultants Nekton about new profiles which were taken by Nekton in June 1980?

INTERROGATORY NO. 60

Do you agree that the Greene and Kennedy report mailed by the USGS on August 13, 1980 was written independently of the Applicant's consultant report by Nekton mailed by Edison on July 29, 1980?

Dated: February 19, 1981

By Richard J. Wharton
RICHARD J. WHARTON
Attorney for Intervenor
F.O.E. ET AL.

CERTIFICATE OF SERVICE

I hereby certify that on the ¹¹17th day of February, 1981, a copy of the foregoing INTERVENOR, FOE ET AL., INTERROGATORIES TO N.R.C. STAFF, Attorney RICHARD J. WHARTON, was served upon each of the following by depositing in the United States mail, first-class, postage prepaid, addressed as follows:

Ivan W. Smith, Esq., Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Cadet H. Hand, Jr., Member
Director, Bodega Marine Laboratory
University of California
P. O. Box 247
Bodega Bay, California 92923

Dr. Emmeth A. Luebke
Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Lawrence J. Chandler, Esq.
Office of the Executive Legal Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Janice E. Kerr, Esq.
J. Calvin Simpson, Esq.
Lawrence Q. Garcia, Esq.
California Public Utilities Commission
5066 State Building
San Francisco, California 94102

David W. Gilman
Robert G. Lacy
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

James H. Drake, Vice President
Southern California Edison Company
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 92770

John R. Bury, General Counsel
Charles R. Kocher, Esq.
James A. Beoletto, Esq.
Southern California Edison Company
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770

Alan R. Watts, Esq.
Rourke & Woodruff
California First National Bank Building
1055 North Main Street, Suite 1020
Santa Ana, California 92701

Ms. Lynn Harris Hicks
GUARD
3908 Calle Ariana
San Clemente, California 92672

Mr. Lloyd von Haden
2089 Foothill Drive
Vista, California 92083

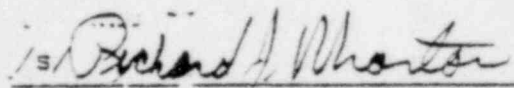
Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Docketing and Service Section
Office of the Secretary
U. S. Regulatory Commission
Washington, D. C. 20555

David R. Pigott, Esq.
Chickering and Gregory
Counsel for San Diego Gas and Electric Company
and Southern California Edison Company
Three Embarcadero Center, 23rd Floor
San Francisco, California 94112
and
2501 M Street N.W.
Suite 560
Washington, D. C. 20037

Phyllis M. Gallagher, Esq.
1695 West Crescent Avenue
Suite 222
Anaheim, California 92801

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DATED: February 17, 1981


RICHARD J. WHARTON, Attorney
for Intervenor
FRIENDS OF THE EARTH, ET AL.