

6/10/82

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
<u>ET AL.</u>)	50-362 OL
)	
(San Onofre Nuclear Generating)	
Station, Units 2 and 3))	

NRC STAFF FURTHER RESPONSES TO THIRD SET
OF INTERROGATORIES BY FRIENDS OF THE EARTH

Interrogatory No. 1:

State whether the N.R.C. (or F.E.M.A.) will require the state and local governments, and other off-site assist agencies to consider the impacts of a major earthquake upon their emergency response plans.

NRC Staff Response

The NRC Staff has the responsibility for reviewing the Applicants' emergency response plans. With respect to the emergency response plans for the San Onofre Nuclear Generating Station, Units 2 and 3, the NRC Staff has requested that the Applicants consider in those plans the effects of earthquakes. This request was initially made by letter of December 17, 1980, and was subsequently clarified by letter of May 13, 1981. It is my understanding that a copy of the December 17, 1980 letter has been provided to the Licensing Board and the parties in this proceeding. The May 13, 1981 letter has also been provided to the parties and will shortly be provided to the Licensing Board.

With respect to the degree of consideration to be given to earthquakes by Applicants, the planning basis should assume the

occurrence of a moderate earthquake and consequently need not assume earthquake effects more severe than the Safe Shutdown Earthquake (SSE). The moderate earthquake to be assumed for the planning basis of the Applicants' emergency response plans may seriously challenge transportation and communication systems. Consequently, Applicants' emergency planning should consider (1) the ability to transport necessary personnel to the nuclear facility to support it, (2) continued communication between the facility and outside agencies, (3) the ability to obtain both onsite and offsite damage estimates to factor into the decisionmaking process and (4) the development of a range of recommendations to take into account the situation produced as a result of the earthquake.

Emergency plans need not be explicitly written to respond to accidents created by failure of plant systems designed for the SSE as failures of such essential safety systems have been made adequately low in likelihood by explicit design against earthquakes at and below the SSE level. In addition, the characteristics of an accident which could theoretically be created by an earthquake larger than the SSE would be in the spectrum of accidents considered in determining the sizes of the emergency planning zones and the other planning elements which form the Commission's regulations in the area of emergency planning. Consequently, in planning for a moderate earthquake and meeting the planning standards set forth in the Commission's regulations, an emergency response base capability would be in place which could be expanded during an actual emergency. Emergency planning for less than worst-case events gives confidence that the occurrence of any of a

spectrum of events, including very low likelihood events, would give decisionmakers a planning base from which specific actions could be chosen from among available alternatives.

Interrogatory No. 2:

If the answer to the foregoing interrogatory is in the negative, state how these emergency plans will be adequately coordinated and integrated in order to protect the public health and safety in the event of a major earthquake.

Response:

See Response to Interrogatory No. 1.

Interrogatory No. 3:

If the answer to interrogatory number 1 is in the affirmative, state whether the N.R.C. (or F.E.M.A.) will direct the state and local governments to revise their emergency plans to include the possible impacts of a major earthquake upon transportation routes, communications systems, medical facilities, etc.

Response:

See Response to Interrogatory No. 1.

Interrogatory No. 4:

If the answer to the foregoing interrogatory is in the affirmative, state when the N.R.C. (or F.E.M.A.) will direct the state and local governments to revise their plans.

Response:

See Response to Interrogatory No. 1.

Interrogatory No. 5:

Is the N.R.C. of the position that an earthquake which exceeds SSE levels will cause damage to more than one reactor located at the same site?

NRC Staff Response:

The Staff position is that seismic Category I structures, systems, and components at San Onofre 2 and 3 are designed to remain functional

during and after the SSE, as required by 10 C.F.R. 100, Appendix A.III.(c). Further, these structures, systems, and components have sufficient margin that they are capable of withstanding earthquakes that exceed the SSE. However, the Staff has not evaluated in detail the degree of margin available. If a sufficiently large earthquake in excess of the SSE is postulated, such a highly improbable event could cause damage to one or both reactors at San Onofre 2 and 3.

Interrogatory No. 6:

If the answer to the foregoing interrogatory is in the affirmative, state whether the N.R.C. has directed applicants to evaluate the possible effects of a "simultaneous release," as defined in 10 CFR 100.10.

NRC Staff Response:

Simultaneous releases at sites having multiple reactor facilities are covered by 10 C.F.R. 100.11(b), not 10 C.F.R. 100.10 as stated in Interrogatory No. 6. The Staff has not directed the Applicants to evaluate, pursuant to 10 C.F.R. 100.11(b)(1), whether or not the San Onofre reactors are independent to the extent that an accident in one reactor would not initiate an accident in another. This is based on the Staff's evaluation that the reactors are independent to the extent that an accident in one reactor would not initiate an accident in another.

With regard to simultaneous releases which might result from earthquake-induced damage at both units at San Onofre 2 and 3, the Staff position is as follows. The likelihood of occurrence of an earthquake, which so exceeds the SSE that it could cause a simultaneous release of radioactivity at both units that exceeds the 10 C.F.R. 100 dose guidelines, is so remote that it need not be specifically considered, either in the plant design or in emergency planning.

Interrogatory No. 7:

If the answer to interrogatory number 5 is in the negative, state the N.R.C. position on the issue of "simultaneous release" caused by a major earthquake.

NRC Staff Response:

See Response to Interrogatory No. 6.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

SOUTHERN CALIFORNIA EDISON COMPANY)

(San Onofre Nuclear Generating)
Station, Units 2 and 3)

Docket Nos. 50-301 O.L. 50-362 O.L.
50-362 O.L. 50-362 O.L.

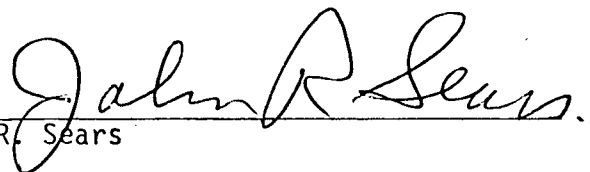
AFFIDAVIT OF JOHN R. SEARS

I am a senior reactor safety engineer in the Nuclear Regulatory Commission Staff's Emergency Preparedness Licensing Branch.

The NRC Staff Responses to Friend's of the Earth Interrogatories served on February 18, 1981 and numbered 1,2,3, and 4 were prepared by me. The responses given are true and accurate to the best of my knowledge.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June/9 1981.


John R. Sears

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

SOUTHERN CALIFORNIA EDISON COMPANY

(San Onofre Nuclear Generating
Station, Units 2 and 3

Docket Nos. 50-361 O.L. 50-362 O.L.
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AFFIDAVIT OF HARRY ROOD

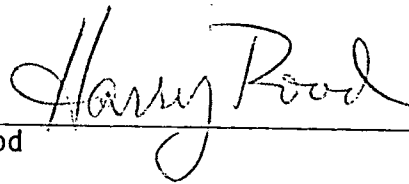
I am a senior project manager in the Nuclear Regulatory Commission
Staff's Licensing Branch No. 3.

The Responses to Friend's of the Earth Interrogatories served on February
18, 1981 and numbered 5, 6, and 7 were prepared by me. The responses
given are true and accurate to the best of my knowledge.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 9, 1981.

Harry Rood



Response 1

Interrogatories 1, 3, and 4 of the Third Set of Interrogatories by Friends of the Earth suggest that the Federal Emergency Management Agency (FEMA) has the authority to "require" or "direct" state and local governments to take certain actions. This is not the case. FEMA has a major role providing assistance and guidance to state and local agencies and it does not direct any state or local agency to meet any requirements.

With respect to earthquake considerations for the San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS 2 & 3), FEMA has considered earthquake effects in making its Interim Findings and Determination Relating to the Status of State and Local Emergency Preparedness for the San Onofre Nuclear Generating Station (Units 2 and 3) dated June 3, 1981. For purposes of the evaluation, earthquake effects no more severe than the Safe Shutdown Earthquake (SSE) were assumed to occur independently of a reactor accident. This planning basis is deemed adequate given the substantial conservatism applied by the Nuclear Regulatory Commission (NRC) in establishing the SSE, and the resulting low likelihood of its occurrence. Even should such a low likelihood event occur, a planning base would be available and could be expanded to meet actual conditions, given a state of emergency preparedness in conformance with the emergency preparedness planning standards of 10 CFR sub-section 50.47.

In its examination of state and local plans, FEMA concluded that, while current plans reflect no direct assessment of earthquake issues, all planning to date does consider the ramifications of such events and a general capability exists to respond through basic emergency planning to what are considered to be the most likely and frequent levels of seismic activity.

It is FEMA's further conclusion that the emergency preparedness of off-site jurisdictions reflects a level of preparedness through existent basic planning to minimally respond to the potential seismic problem.

FEMA intends to work actively with both the state and local governments in a joint developmental endeavor to modify existing planning to place these jurisdictions in a better position to respond to potential earthquake effects.

Interrogatory 3

If the answer to the foregoing interrogatory is in the negative, state how these emergency plans will be adequately coordinated and integrated in order to protect the public health and safety in the event of a major earthquake.

Response: See answer to interrogatory 1.

Interrogatory 4

If the answer to the foregoing interrogatory is in the affirmative, state whether the NRC (or FEMA) will direct the state and local governments to revise their plans.

Response: See answer to interrogatory 1.

UNITED STATES OF AMERICA
FEDERAL EMERGENCY MANAGEMENT AGENCY

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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SOUTHERN CALIFORNIA EDISON COMPANY)
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(San Onofre Nuclear Generating)
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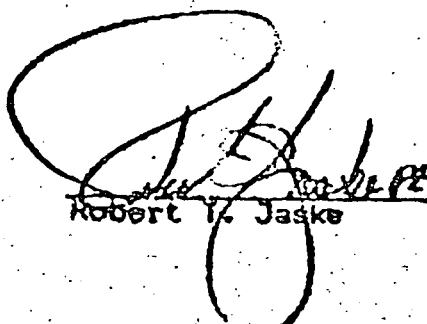
AFFIDAVIT OF Robert T. Jaske

I am the Acting Director of the Radiological Emergency Preparedness Division,
Federal Emergency Management Agency.

The Responses to the Friends of the Earth interrogatories served on February 18,
1981, numbered 1, 3, and 4 were prepared by me. The responses given are true
and accurate to the best of my knowledge.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 11, 1981.



Robert T. Jaske