

DAVID R. PIGOTT  
EDWARD B. ROGIN  
SAMUEL B. CASEY  
JOHN A. MENDEZ  
OF ORRICK, HERRINGTON & SUTCLIFFE  
A Professional Corporation  
600 Montgomery Street  
San Francisco, California 94111  
Telephone: (415) 392-1122

CHARLES R. KOCHER  
JAMES A. BEOLETTO  
SOUTHERN CALIFORNIA EDISON COMPANY  
P.O. Box 800  
2244 Walnut Grove Avenue  
Rosemead, California 91770  
Telephone: (213) 572-1900

Attorneys for Applicants  
Southern California Edison Company  
San Diego Gas and Electric Company  
City of Anaheim, California and  
City of Riverside, California

DOCKETED  
USMRC

'82 FEB 12 AM 1:17



UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of )  
 ) Docket Nos. 50-361 OL  
 ) 50-362 OL  
 )  
 SOUTHERN CALIFORNIA EDISON )  
 )  
 COMPANY, ET AL. )  
 )  
 ) APPLICANTS' RESPONSE  
 (San Onofre Nuclear Generating )  
 ) IN OPPOSITION TO INTERVENORS  
 Station, Units 2 and 3) )  
 ) CARSTENS ET. AL.'s  
 ) APPLICATION FOR A STAY  
 )  
 )

February 8, 1982

DS03  
s  
//

## I. INTRODUCTION

On January 11, 1982 the Atomic Safety and Licensing Board ("ASLB") issued, in the above docket, its Partial Initial Decision ("PID"), whereby it decided all relevant seismic issues and authorized issuance of a fuel loading and low power operating license. On January 27, 1982 there was filed "Intervenor's (sic) Carstens et al Application for Stay of Low Power License (10 C.F.R. 2.788)", ("Application"). Pursuant to 10 C.F.R Sec. 2.788(d), Applicants hereby respond in opposition to said Application.

## II. THE PARTIAL INITIAL DECISION HAS CORRECTLY DECIDED THE SUBSTANTIVE ISSUES

Intervenors recognize in order to prevail on their Application they must make "a strong showing that they are likely to prevail on the merits." 10 C.F.R. Sec. 2.788(e)(1) Intervenors have raised several issues wherein they allege the ASLB committed error. Applicants submit that the ASLB has not committed such error and the Intervenors lack substantive grounds to prevail on appeal.

### A. THE ASLB CORRECTLY RULED NOT TO ALLOW INTO EVIDENCE INTERVENORS' TESTIMONY RELATIVE TO THE CRISTIANITOS FAULT

Intervenors allege that the ASLB erred in not allowing into evidence the testimony of Mr. Richard S. Simons relative to the Cristianitos fault. Applicants submit that the ASLB had both a legal and factual basis for excluding this testimony from the operating license proceeding.

The NRC's rules and regulations do not contemplate that at the operating license stage, every matter be subject to being completely reopened. For this reason the judicial doctrines of repose (res judicata/collateral estoppel) have been held to apply to administrative proceedings. It has also been recognized that in such proceedings these doctrines should "be relaxed or qualified without destroying [their] essential service." Cf. Davis, K. 2 Administrative Law Treatise 627 (1958); PID p. 23.

The geology and seismicity of the Cristianitos fault were examined at both the 1964 construction permit hearings for SONGS Unit 1 and the 1973 construction permit proceeding for SONGS Units 2 and 3. On both occasions it was determined that the Cristianitos is not a capable fault. Intervenors were thus properly precluded from raising the issue a third time.

Intervenors have also failed to demonstrate that either exception to "foreclosure" are present -- i.e. changed factual or legal circumstances and overriding competing public policy considerations. Alabama Power Company (Farley Units 1 and 2), 7 AEC 210 (1974).

The evidence Intervenors argue constitutes changed circumstances, was determined by the ASLB to be superficial, of questionable accuracy, very simplistic, and "adds nothing to what has been generally known [about the area of the Cristianitos] for decades." (PID pp. 18-20)

Intervenors' alleged public policy concern, i.e., the protection of the public health and safety, is disposed of by the ASLB's conclusion that: "From the standpoint of seismicity of the site and the surrounding area there is reasonable assurance that San Onofre Units 2 and 3 can be operated without endangering the health and safety of the public." (PID p. 216).

Intervenors' contention that Applicants and the ASLB have "waived" any "foreclosure" is also both legally and factually incorrect.

"Before a party may be deemed to have waived the defense of [foreclosure] he must have assumed a position so inconsistent with its assertion as to constitute a decision to abandon it, or acted in a manner which renders the allowance of the defense inequitable. . . . such a waiver has been found where a party has chosen to relitigate rather than assert the benefit of a prior adjudication of an issue in dispute." Carmen Industries Inc. v. Wahl, 472 F. Supp. 877 (1976).

The admission of minor pieces of evidence which reference the Cristianitos fault does not constitute a waiver especially where it has been demonstrated that such evidence goes to the issue of the appropriate level of the

investigations of the seismicity of the SONGS site and not, as Intervenors allege, to the activity of the Cristianitos fault.

Finally, assuming that Intervenors arguments on the admissibility of the Simons testimony are correct, Intervenors still have not made a strong showing of prevailing on the merits. Intervenors' arguments totally ignore the fact that Mr. Simons' testimony was heard by the ASLB, as a matter of proof pursuant to 10 C.F.R. Sec. 2.743(e) and subject to a motion to strike. (Tr. 4778) Mr. Simons' testimony was submitted and he was cross-examined by Applicants and NRC staff and questioned by the ASLB. Independent of foreclosure, the ASLB concluded that Mr. Simons' presentation lacked any probative value and that the witness "... had nothing useful to tell us about seismic conditions affecting San Onofre." (PID Page 17; TR 5196) Given that Mr. Simons has testified and his testimony has been rejected on the merits the admission of Mr. Simons' testimony would not result in Intervenors prevailing.

B. INTERVENORS CONTINUE TO MISCHARACTERIZE THE OFFSHORE ZONE OF DEFORMATION (OZD).

Intervenors apparently misunderstand the concept of a zone of deformation. A zone of deformation is not a single throughgoing fault as contended by Intervenors. The OZD has never been construed as a single throughgoing fault. This is clearly stated in the testimony of James F. Devine, Assistant Director for Engineering Geology, U.S.G.S., who testified in both the construction permit and operating license proceedings. (Tr 5331-5335) Intervenors further confuse the concept of linearity with continuity. The fact that a zone is "linear" does not imply that a single continuous fault exists along its length. Further, a finding that the zone is segmented does not mean the various segments are "disassociated" one from the other. Neither Applicants' case nor the ASLB's findings contradict the U.S.G.S. model, which was assumed for seismic design purposes at the construction permit stage.

The issue is posed in Contention #4 as follows:

"Whether based on the geologic and seismic characteristics of the OZD, including its length...."

The "geologic and seismic characteristics" include such questions as the number and length of the various faults within the zone and their seismic histories. A full litigation of the geology would have included evidence on whether the three segments of the zone are related such that they form a single zone or whether they are to be considered separately as three distinct, unrelated faults or zones. A complete reading of the discussion referenced by Intervenors (Application pp. 6-7) leads to the inescapable conclusion that examination of the geologic characteristics of the OZD was contemplated within the stated issue. (Tr. 1043-1055) Intervenors' claim that they were not aware the segmentation question was a part of the issue is preposterous. Their examination of witnesses frequently addressed the length and continuity of the OZD. The consistent response was that the zone was discontinuous and segmented. (Tr. 1298-99; 4732; 4880) Rupture along the OZD, should it occur, would be on segments of the fault and not rupture the entire zone (Tr. 5333; 6244) This issue is but another variation of Intervenors' continuing attempt to distort and misconstrue the U.S.G.S. model previously assumed at the construction permit stage for a different purpose, that of arriving at the appropriate seismic design.

The ASLB's ruling with respect to the segments was one of several necessary steps in reaching the final determination of Ms7 as the appropriate maximum magnitude to be assigned to the OZD. Intervenors' continuing attempt to maintain a geologic interpretation that is unsupported by either geologic facts or the history of this case must be rejected.

C. INTERVENORS TOTALLY DISREGARD THE CONTEXT AND SUBSTANCE OF THE TESTIMONY OF NRC WITNESS DR. SLEMMONS.

Intervenors have alleged that the ASLB has misconstrued the testimony of Dr. Slemmons. Intervenors attempted during cross-examination to foist on Dr. Slemmons their use of the concept of standard deviation. Dr. Slemmons answered questions based on intervenors faulty premises but refused to adopt such premises. (Tr 6240-6243; 6265-6277) Intervenors now imply that they will prevail on appeal on a concept that both the ASLB and the witness rejected.

Intervenors have ignored the basic thrust of Dr. Slemmons comments regarding the addition of one standard deviation to a "mean" value. In the regular course of science and engineering, the process of quantifying a parameter, such as maximum magnitude, proceeds by estimating at each stage of the analysis the best or most likely value of each parameter and its associated uncertainty (standard deviation). The final parameter is derived by combined mean estimates; standard deviations are independently evaluated. This process produces a best mean estimate and its associated uncertainty. To keep adding conservatism at each step in the analysis is not a standard engineering practice. (Tr. 6267-6268)

Dr. Slemmons testified that if he were to re-do the calculations, he would use the less conservative but more rigorous procedure of combining mean estimates separate from the standard deviations. (Tr. 6275) Intervenors characterization of this alternate procedure ("Dr. Slemmons corrected methods") as simply derived by adding 0.697 to his previous estimates is erroneous. Dr. Slemmons also testified, when asked if he would add a standard deviation in using his method to estimate maximum magnitude, "that he wouldn't do it". (Tr. 6267-6269) It should be noted that Dr. Slemmons originated the method in question. (Tr. 5471-5473)

At the conclusion of his examination, Dr. Slemmons stated:

"I have high confidence in the magnitude of 7 due to the fact that I, in my opinion the two methods -- two independent methods, slip rate and my table on page E14, strongly support a magnitude of about seven." (Tr. 6323)

D. DR. BOORE'S TESTIMONY IS CONSISTENT WITH THE SONGS DESIGN BASIS.

Intervenors allege that the ASLB ignored the peak ground acceleration evidence presented by Dr. Boore. Such was not the ASLB's intent. (PID p. 120) After careful consideration, the ASLB concluded that the results of Boore and Joyner were actually in good agreement with Applicants' analysis. (PID pp. 119-124) Intervenors take issue with an alleged discrepancy in documents, i.e., U.S.G.S. Open File Report 81-365 versus "Peak Horizontal Accelerations and Velocity From Strong Ground Motion Records Including Records From the 1979 Imperial Valley, California Earthquake". If Intervenors would only turn the page and read the ASLB's full discussion, the contrived discrepancy would disappear. (PID 119 and 120)

In support of their allegation that the ASLB ignored data, Intervenors incorrectly allege that Boore testified that an  $M_{\text{g}}7$  earthquake on the OZD would generate 0.83g (84th percentile) at SONGS. Dr. Boore recognized that his analysis did not follow standard engineering practice and for comparison with standard engineering practice, his results must be divided by 1.13 ,i.e., 0.83g becomes 0.73g. (Tr 6559)

Dr. Boore recognized that the predictions in his paper must be used carefully for large magnitude earthquakes at close distance; "For distances less than 40 km from earthquakes with M greater than 6.6, the prediction equations are not constrained by data, and the results should be treated with caution." (Intervenors Ex. 28, at p. 17) Boore's results are strongly influenced by data at distances greater than 50 km from the earthquake source. These data are not relevant to conditions being considered for the San Onofre site, namely the prediction of PGA at 8 km from a fault. When Boore excluded from his analysis

data from beyond 50 km., he predicted a mean and 84th percentile peak acceleration of 0.31g and 0.57g for M 7 at 8 km. (Tr. 6609) Such predictions are consistent with the SONGS design spectrum.

E. INTERVENORS MISCONSTRUE THE RELEVANCE OF THE RATIO OF VERTICAL TO HORIZONTAL ACCELERATIONS

Intervenors' allege that the traditional 2/3 ratio between vertical and horizontal accelerations has been exceeded in several earthquakes, and that there is no reason why it could not occur on the OZD. The ASLB properly concluded that an exceedence of the 2/3 ratio is not, in itself, significant. (PID p. 140) The SONGS vertical design peak acceleration is 0.44g. The assessment of the adequacy of the design must focus on the expected absolute values, not ratios. (PID pp. 139-140; Tr. 4024) Assuming the 2/3 ratio can be exceeded, Intervenors have not alleged that any damage would follow. Thus, Intervenors have not only failed to raise a substantial appeal issue, in this instance they fail to allege any damaging impact if they are correct.

F. DR. LUCO'S TESTIMONY DOES NOT PURPORT TO ADDRESS THE SONGS SEISMIC DESIGN BASIS.

Intervenors imply that Dr. Luco recommended a design spectrum anchored at a peak acceleration value of 0.8g. However, Dr. Luco testified that 0.8g was a free-field value and was not a value appropriate for anchoring the design spectrum. (Tr 5014)

Dr. Luco's assessment of 0.8g was based on USGS Circular 672 and on correlations by Trifunic. Intervenors' witness, Dr. Boore, a co-author of Circular 672, described this document as "obsolete". (Tr 6566) Dr. Luco acknowledged that his evaluation was dated:

"More recent calculations would lead to values of peak acceleration somewhat lower than 0.8g for a local magnitude of 6.5 at a distance of eight kilometers" (Tr. 5010; 5014)

The record shows that Dr. Luco was emphatic in his position that he was not recommending any particular value for SONGS design and his testimony cannot be relied upon to support Intervenors' Application. (Tr. 5010)

G. INTERVENORS ALLEGATIONS CONCERNING FOCUSING AND SATURATION ARE IRRELEVANT.

During the course of the hearing, Intervenors failed to present data or theory indicating that focusing is a significant concern for SONGS. All parties agree that focusing has been observed for several moderate sized earthquakes in California. There is no dispute that these data indicate PGA's are about 1.5 times greater in the direct path of focusing than the median PGA's recorded at all azimuths to the rupture surface. The San Onofre site is located perpendicular to the controlling fault at a distance of 8 km. As noted by the ASLB, because of this geometry, the site is not likely to be adversely effected by focusing. (PID p. 152)

Intervenors implication that saturation arguments were used to reduce estimated PGA grossly misrepresents the record. All predicted values of PGA were based on observational data. Furthermore, the issue of saturation is irrelevant as the ASLB states: "We do not ascribe substantial significance to the phenomenon". (PID p. 147)

III. THE INTERVENORS HAVE FAILED TO SHOW IRREPARABLE INJURY

The Intervenors' speculate regarding the likelihood and consequences of a nuclear accident during the period of appeal. Such speculation as a matter of law is insufficient to constitute the imminent and irreparable injury required to justify a stay of a licensing decision. State of New York v. NRC, 550 F.2d 745, 756-57 (2d Cir. 1977); Virginia Sunshine Alliance v. Hendrie, 477 F. Supp. 68, 70 (D.D.C. 1979).

Intervenors have failed to demonstrate any cognizable injury, much less the sort of immediate, irreparable injury pending appeal which is prerequisite to issuance of a stay. Public Service Company of Indiana (Marble Hill), ALAB-437, 6 NRC 630, 632 (1977); Philadelphia Electric Company (Peach Bottom), ALAB-158, 6 AEC 999 (1973).

IV. THE GRANT OF A STAY WILL HARM APPLICANTS AND  
WOULD NOT BE IN THE PUBLIC INTEREST

Intervenors' arguments that the grant of a stay will not "inordinately" harm other parties is entirely misplaced. The harm to Applicants is set forth in the attached "Affidavit of Robert Dietch." Intervenors refusal to recognize the significance of this substantial harm to the Applicants and the public at large is contrary to Appeal Board precedent. Public Service Co. of Indiana (Marble Hill), ALAB-487, 6 NRC 630, 634 (1977); Florida Power & Light Company (St. Lucie), ALAB-404, 5 NRC 1185, 1188 (1977).

Intervenors' allegations that Applicants do not require a license at this time are factually incorrect. Applicants have substantially completed the Seismic Design Verification Program. Although this program is not required by NRC regulations as a licensing prerequisite, Applicants have undertaken such program and submitted the preliminary verification of the seismic design to the NRC. Applicants have also successfully qualified sufficient senior reactor operators to operate SONGS 2. Applicants are ready to load fuel and every day of delay imposes irreparable financial loss on Applicants or Applicants' ratepayers. (Affidavit of Robert Dietch)

Applicants are not precluded by state law from operating Unit No. 2. Applicants dispute with the California Coastal Commission does not preclude operation of the facility pursuant to an NRC license. Finally, Intervenors will not be heard to argue that granting of a stay will benefit, rather than harm the applicant, by protecting against expenses that would be wasted if intervenors

succeed on appeal. Florida Power & Light, supra, 5 NRC at 1188; Virginia Petroleum Jobbers Association v. FPC, 259 F.2d 921, 926-27 (D.C. Cir. 1958). It is also a matter for judicial notice that the mere fact that a plant has been operating has never deferred the Commission from insisting upon needed modifications regardless of the presence of radioactivity generated.

It is generally recognized that the "public interest" lies with preserving the presumption of validity that attaches to licensing board decisions unless a substantial reason appears from the stay proponents papers for staying the effectiveness of such decisions. Florida Power & Light Company, supra, 5 NRC, at 1189. Intervenors have failed to make such a showing. Accordingly, the public interest demands that Intervenors' stay request be denied.

Respectfully submitted

by ORIGINAL SIGNED

David R. Pigott  
One of Counsel

Dated: February 8, 1982