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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nunzio J. Palladino, Chairman
Thomas M. Roberts
James K. Asselstine
Frederick M. Bernthal
Lando W. Zech, Jr.

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In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY,

(Diablo Canyon Nuclear Power Plant,
Units 1 and 2)

Docket Nos. 50-275 OL
50-323 OL

MEMORANDUM AND ORDER

CLI-84-13

Introduction

This order concludes the Nuclear Regulatory Commission's process for determining whether to make effective the Atomic Safety and Licensing Board's ("Licensing Board") fourth and final Partial Initial Decision (PID), LBP-82-70, 16 NRC 756 (1982) authorizing the issuance of a full power license for the Diablo Canyon Nuclear Power Plant, Unit 1 ("Diablo Canyon" or "plant"), to Pacific Gas and Electric Company ("PG&E"), subject to the satisfaction of certain license conditions. Formal appeals and petitions for Commission review of the merits of various Licensing Board and Atomic Safety and Licensing Appeal Board ("Appeal Board") decisions for Diablo Canyon are still pending. This

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effectiveness decision is without prejudice to those appeals and petitions. 10 CFR 2.764.

In addition to reviewing the Licensing Board's decision and determining the status of the license conditions imposed in it, the Commission has considered several other issues, some of which arose as a result of the unique circumstances associated with this plant. The other matters considered by the Commission are: licensing issues which were not placed in controversy in the formal licensing hearings, including review of the concerns of Mr. Isa Yin regarding small bore piping and pipe supports (Mr. Yin is an NRC inspector who was assigned to review some of the allegations regarding Diablo Canyon.); issues related to the Independent Design Verification Program (IDVP) and determined by the NRC staff to require resolution prior to full power operation; NRC staff evaluation of training and qualification of operators and shift supervisors; pending petitions for enforcement action pursuant to 10 CFR 2.206; allegations determined to require resolution prior to full power operation; investigations by the Office of Investigations (OI) and the Office of Inspector and Auditor (OIA); recent Appeal Board decisions on motions to reopen the record, and on design quality assurance (DQA) and construction quality assurance (CQA); consideration of the effects of earthquakes on emergency planning; and Joint Intervenors' request for a stay of this licensing proceeding.

Conclusion

The Commission's decision on these issues is discussed below. In sum, the Commission has determined: (1) to make effective, without prejudice to the pending merits reviews, the Licensing Board decision authorizing issuance of the full power operating license for Diablo Canyon; (2) that the license conditions imposed by the Licensing Board have been fulfilled; and (3) that all of the other matters listed above have been resolved adequately to authorize issuance of the full power license for Diablo Canyon Unit 1. However, this Order shall not become effective, and no full power license may issue, until 5:00 p.m., Eastern Daylight Time, August 17, 1984. This delay is to allow orderly processing of any request for expedited judicial review.

Discussion

1. Licensing Board Decision

In LBP-82-70, 16 NRC 756 (1982), the Licensing Board determined that a full power operating license for Diablo Canyon could be issued upon the satisfaction of certain license conditions. Previous decisions by the Licensing Board and Appeal Board resolved other contested matters. The two remaining issues decided by the Licensing Board in LBP-82-70 were:

- (1) the adequacy of the Diablo Canyon emergency plan; and
- (2) whether the plant's pressurizer heaters, block valves and power-operated relief valves were required to be

classified as safety-grade and provide adequate protection to the public health and safety as installed.

The Licensing Board found that PG&E's emergency plan would satisfy Commission regulations and be adequate upon completion of the following license conditions by the Director of Nuclear Reactor Regulation:

- a. verification that deficiencies identified by FEMA in the San Luis Obispo County emergency plan have been corrected;
- b. receipt of written acquiescence by the appropriate State jurisdictions binding them to participate in the Standard Operating Procedures required to be followed by Federal Regulations;
- c. receipt of FEMA findings on the adequacy of the State Emergency Plan; and
- d. verification that tone alerts or equivalent warning devices are operational in schools, hospitals and other institutions.

On August 2, 1984, the Director informed the Commission that all these license conditions were satisfied.¹

¹In ALAB-776, the Appeal Board vacated the license condition requiring the Director to obtain FEMA findings on the adequacy of the State emergency plan, insofar as that license condition may have been
[Footnote Continued]

As for the pressurizer heaters, power-operated relief valves and their associated block valves, the Licensing Board found that:

- (1) pressurizer heaters were not required to be safety-grade;
- (2) two of the three PORVs and associated equipment are safety grade; and
- (3) adequate protection of public health and safety is provided by this equipment as installed. These decisions obviously support the issuance of a full power license. The Commission finds nothing in the pending appeal which would support a stay of license issuance.

2. Uncontested Licensing Issues

a. Conditions On The Low-Power License

The low power license for Diablo Canyon contained several license conditions required to be satisfied by PG&E prior to a full power license decision. Seven of these conditions were a direct outgrowth of concerns raised by Mr. Yin. In response to his concerns, the NRC staff formed the Diablo Canyon Peer Review Group (Peer Review Group), which included senior staff engineers expert in piping, piping supports, and quality assurance. After meeting with Mr. Yin and PG&E, and after examining areas of the plant of concern to Mr. Yin, the Peer Review Group formulated the seven license conditions.

[Footnote Continued]

interpreted to require completion of the formal FEMA review process under 44 CFR 350. To the extent that the Licensing Board may have had a less formal FEMA review in mind, the Board's condition has been satisfied by FEMA's letter of July 11, 1984. The merits review of ALAB-776 is pending before the Commission, and the Commission does not, at this point, express any view on the correctness of ALAB-776.

The license conditions addressed the following issues:

1. review of all computer calculations of small bore piping supports;
2. review of rigid supports placed in close proximity to each other to assure that load sharing results in acceptable piping and support stress;
3. review of snubbers in close proximity to rigid supports to ensure adequate snubber function;
4. development of a periodic inspection program to ensure the maintenance of thermal gaps included in thermal analysis of piping;
5. establish procedures and schedules for the hot walkdown of the main steam piping system and document the results of such walkdown;
6. review, resolve and document certain piping design changes; and
7. demonstrate by report to the Commission that certain technical issues in the design of supports for small bore and large bore piping have been addressed.

After a thorough review, the Peer Review Group and the Advisory Committee on Reactor Safeguards ("ACRS") found that PG&E had analyzed and resolved the issues in the license conditions adequately to permit full power operation. These conclusions are set forth in staff's Safety Evaluation Report Supplement ("SSER") 25. SSER 25 is discussed further under item 3 below.

At the August 2, 1984 public Commission meeting, Mr. Yin expressed his professional disagreement with the Peer Review Group's report on the adequacy of the resolution of certain design issues. The Commission explored with Mr. Yin and other members of the NRC staff the details of this differing professional judgment. Based on these discussions and the analyses in SSER 25, the Commission believes that the collective judgments by the Peer Review Group and ACRS are deserving of more weight than the views of Mr. Yin. Accordingly, the Commission accepts the judgments of the Peer Review Group and ACRS and believes that these matters have been resolved adequately for issuance of a full power license.

Staff concluded in SSER-23 that PG&E had satisfied its requirements related to fire protection. Staff also reported in SSER 24 that PG&E's jet impingement evaluation, conducted in response to a condition imposed by the Appeal Board in ALAB-763, was acceptable.

b. Other Issues

As with any full power license, the license for Diablo Canyon contains several technical conditions which reflect the NRC staff's pre-licensing technical review of issues relevant to full power operation. For Diablo Canyon, the license conditions and the technical bases for them are contained in SSER 27. The Commission believes that SSER 27 adequately addresses the full power issues considered by the staff.

3. Independent Design Verification Program

a. Large and Small Bore Piping

In SSERs 18, 19 and 20 the staff identified issues regarding the IDVP's review of the design of small and large bore piping and stated that those issues should be resolved prior to full power operation. Those issues arose out of inspections performed in response to allegations concerning the control of design of pipes and piping supports. The principal issues identified by the staff were: (1) adequacy of the size of the sample used to determine the acceptability of small bore piping designed in accordance with "span-rules"; (2) apparent inconsistencies between alleged deficiencies in Interim Technical Reports and the decision not to expand the IDVP; and (3) adequacy of the sample size and distribution used to analyze large bore piping and its supports.

The NRC staff's procedure for resolving these issues is described in SSER 25. The Peer Review Group determined that piping designed using span-rules was acceptable, that well-founded judgmental factors had been applied to select the size and distribution of samples for review, that the number and types of samples was adequate to verify design methodology, that apparent deficiencies in the ITR's were found insignificant to the IDVP when viewed in light of the back-up material, and that review of all small bore computer analyzed supports showed that input errors had no impact on satisfying the licensing criteria. Accordingly, the Peer Group reaffirmed the IDVP's conclusion that the design of large and small bore piping had been verified. The Commission finds that the issues regarding the IDVP's review of large and small bore piping have been adequately resolved to permit full power operation.

b. Other Issues

Supplements 18, 19 and 20 to the Safety Evaluation Report for Diablo Canyon also identified a number of other items requiring resolution prior to full power operation. In Supplement 24 to the Safety Evaluation Report (SSER 24) the staff has reported that all these items have been resolved. The Commission has no reason to disagree with the staff's analysis.

4. Training And Qualification Of Operators And Shift Supervisors

On July 13, 1984, the NRC staff reported to the Commission on the performance of operating crews and shift advisors² during start-up and low power testing. SECY-84-283 (1984). The report was based on observations and evaluations by various teams composed of members of the NRC

staff expert in operator licensing, license qualification, and license examination. The teams concluded that:

1. PG&E has provided shift advisors that meet the Commission requirements for qualifications, training and experience;
2. the shift advisors are successfully working with operating shift crews;

²Shift advisors experienced with PWRs comparable to Diablo Canyon were provided for each operating shift to provide operating support until the operating crews attained experience with operating the facility.

3. operator crew performance during start-up and low-power testing has been above average; and
4. licensee management is adequately involved in day-to-day operations.

On the basis of this report, the Commission concludes that the operating staff is capable of operating Diablo Canyon at full-power.

5. Petitions Under 10 CFR 2.206

In recent months several petitions for enforcement action related to Diablo Canyon were filed. Essentially, these petitions were based on various allegations regarding construction practices and plant safety. These allegations are discussed below. At the August 2, 1984 public Commission meeting, the staff reported that it found nothing in the petitions that would warrant deferring the authorization of full power operation.

6. Allegations Relevant To Full-Power

As of July 8, 1984, there were over 1400 allegations regarding Diablo Canyon, although many (some 400) were duplications or small variations of others. All these allegations were filed since early 1983, some ten years after PG&E filed its operating license application. In SSER 26, the staff reported that it considered 581 allegations formally resolved, and that in its view none of the other allegations required formal resolution prior to full power operation.

All allegations were handled by the Diablo Canyon Allegation Management Program (DCAMP) described in SSER 21 and SSER 22. Under that program, the NRC staff has spent thousands of hours investigating and evaluating those allegations. All allegations were screened using criteria set out in SSER 22 for determining which allegations required resolution prior to full power operation.

As a result of this screening, seven areas were identified in SSER 22 as requiring resolution prior to exceeding low power:

1. Operational Limits for the Component Cooling Water System;
2. Replacement of Welded High Strength Bolts;
3. As Built Drawings for Operations;
4. Completion of Systems Interaction Program and Modifications,
5. Evaluation of Coating Concern;
6. Piping and Supports and Related Design Issues; and
7. Residual Heat Removal Low Flow Alarm.

The detailed evaluations and resolutions of these allegation areas are contained in SSER 26. In addition, SSER 26 resolves a subsequently developed allegation area regarding bolted connections.

At the August 2, 1984 public Commission meeting, the staff reported that approximately three hundred of the remaining allegations had been resolved satisfactorily and that the documentation of these resolutions would be available shortly. The staff also reported that resolution of all of the allegations required only very few (less than ten) physical changes to the plant. Some 500 allegations remain which have not been

formally resolved. However, each of these has been reviewed under the SSER 22 screening criteria and it has been determined that full power operation can be authorized pending formal resolution.

Allegations of harassment or intimidation received special Commission attention. Relatively few (eight) individuals have made such charges, and staff concluded, based on its reviews, which included interviews of approximately 250 individuals on site and hundreds of interactions with others in the course of reviews of allegations, that there was no widespread pattern of harassment or intimidation sufficient to call the quality of the plant into question.

Based on our review of the information contained in SSER 26 and the information described above, as well as the other information provided at the August 2 meeting, the Commission believes that a full power license need not be deferred pending the formal resolution of the outstanding allegations. Efforts to resolve all remaining allegations formally will continue.

7. Investigations

The Office of Investigations is still pursuing a number of allegations of wrongdoing related to Diablo Canyon, some related to harassment or intimidation of PG&E contractor quality inspectors. Staff informed the Commission at the August 2 meeting that these pending matters need not delay full power authorization because, based on its screening of the allegations against the criteria of SSER 22, it found no significant technical problem or pervasive pattern of purposeful intimidation. At

the same meeting, the Office of Inspector and Auditor (OIA) reported that allegations of wrongdoing by the staff had not been substantiated. The Commission also discussed with Mr. Ronald Smith, the OIA investigator, allegations regarding his conduct of the investigation.

Based on the written and oral report by the staff, the Commission concludes that authorization of the full-power license need not await resolution of pending investigations and that there is no reason to pursue further the allegations of staff wrongdoing.

8. Adjudicatory Decisions

In ALAB-756, the Appeal Board determined that Joint Intervenors and the Governor of California had failed to carry the heavy burden of showing that the formal adjudicatory record on construction quality assurance should be reopened. Petitions for Commission review of this decision were then filed. A majority of the Commission not having voted to review this decision, the petitions for review were deemed denied.

In ALAB-763, the Appeal Board extensively reviewed contentions regarding alleged deficiencies in the design quality assurance program as reviewed by the Independent Design Verification Program (IDVP). The Appeal Board found that the IDVP had not uncovered any uncorrected deficiencies in design quality assurance requiring a reversal of the Licensing Board's previous decision on the adequacy of design quality assurance. The Commission is considering the petitions for review of this decision and the responses thereto. The decision in ALAB-763 obviously supports issuance of a full power license, and the Commission

sees nothing in the petitions for review that would warrant a stay of the full power license pending further review.

In ALAB-775, the Appeal Board denied additional petitions by the Joint Intervenors and Governor of California to reopen the record on design and construction quality assurance. The Commission has not yet determined whether that Appeal Board decision warrants review. ALAB-775 also supports issuance of a full power license, and the Commission sees no reason to stay the issuance of the full power license pending further review.

9. Effects Of Earthquakes On Emergency Planning

In a separate Decision, CLI-84-12, the Commission concluded that its regulations do not require specific consideration of the effects of earthquakes on emergency planning, and that there are no special circumstances warranting waiver of the regulations to allow such consideration for Diablo Canyon. Rather, this issue would be pursued on a generic basis by rulemaking.

10. Stay Requests

a. New Seismic Information

By letter dated July 17, 1984, Joint Intervenors requested the Commission to delay indefinitely any vote on whether to authorize a full-power operating license for Diablo Canyon. The bases for Joint Intervenors' request were recent developments regarding the geology of the site at Diablo Canyon and new data associated with recent

earthquakes in central California. This information has also been supplied to the Appeal Board in Joint Intervenors' motion to reopen the seismic record in this proceeding.

Subsequently, on July 25, 1984, Joint Intervenors moved the Appeal Board to stay the Diablo Canyon proceeding. That stay request incorporated Joint Intervenors' previous request of July 17, 1984 and raised other issues. By Order of July 27, 1984, the Appeal Board directed that stay request to the Commission.

The Commission has reviewed the parties' filings and determined, for the reasons discussed below, that a stay of the licensing proceeding is not warranted.

Before addressing the stay criteria, the Commission notes that it has recognized the growth of scientific knowledge in seismology and geology and the resulting potential need to reassess the seismic design basis of Diablo Canyon. The license for Diablo Canyon is conditioned on PG&E's completion of a seismic reevaluation by 1988. Of course, if new information developed in the interim requires more prompt action, that action will be taken. But the information presented now by Joint Intervenors does not warrant a stay.

Traditional stay analysis requires a movant to address several factors including, in particular, a demonstration of irreparable injury and probability of success on the merits. As applied to the new seismic information, this requires Joint Intervenors to demonstrate that the new information requires the conclusion that there is no longer reasonable assurance that the seismic design of Diablo Canyon is adequate, and that Joint Intervenors will be irreparably injured by permitting the plant to

operate before the plant is abandoned or rebuilt in accordance with some modified design. A review of the information presented by Joint Intervenor shows that it does not meet the stay requirements.

Joint Intervenor rely on new data from the Morgan Hill earthquake of April 24, 1984. This earthquake resulted in the highest horizontal ground acceleration ever recorded, 1.29g, at a site on an abutment of the Coyote Dam near the southeast end of the rupture zone. Joint Intervenor contend that measurement of such a high ground acceleration for an earthquake of magnitude 6.1 shows that the anchor acceleration of 0.75g, taken as an important element of the seismic design basis for Diablo Canyon, is much too low for the Safe Shutdown Earthquake (SSE) of magnitude 7.5 assigned to the Hosgri Fault.

This conclusion does not necessarily follow from the data. As Joint Intervenor acknowledge, there is evidence in the record that two other earthquakes smaller than the SSE, the San Fernando Valley earthquake of 1971 and the Imperial Valley earthquake of 1979, both resulted in ground accelerations substantially higher than 0.75g. An acceleration of 1.25g was measured at the Pacoima Dam in 1971 and an acceleration of 0.81g was measured at Bond's Corner in 1979. The Appeal Board, in ALAB-644, found that in both cases these anomalously higher acceleration values were distorted responses related to singularities in site geology. PG&E notes in its response to the stay motion that the acceleration at Pacoima Dam was almost as great as the acceleration measured at Morgan Hill and, thus, that the Appeal Board already took such high values of the acceleration into account when reviewing the seismic design basis of Diablo Canyon.

The Commission finds that the Morgan Hill data does not undermine the Appeal Board's analysis. As PG&E and the NRC staff point out, the new high value of ground acceleration observed at Morgan Hill was measured at a dam abutment, thus presenting a situation similar to that at the Pacoima Dam. Moreover, as discussed below, the "focusing" effect believed partially responsible for this high value of ground acceleration has already been found not present at Diablo Canyon. Under these circumstances, the Joint Intervenors have not established that they are likely to demonstrate a lack of reasonable assurance that the seismic design is adequate.

Joint Intervenors also rely on the conclusions of the United States Geologic Survey that the Morgan Hill earthquake demonstrated "focusing" and "high stress drop." These findings, Joint Intervenors contend, contradict the Appeal Board's conclusions that focusing and high stress drop were speculative phenomena.

But the Appeal Board did not merely dismiss focusing and high stress drop as speculative phenomena. For example, focusing was dismissed in part for Diablo Canyon because of site geology. The Appeal Board found that focusing would not be expected because the Diablo Canyon site had the wrong orientation to the Hosgri Fault and was too far from the source of the focussed motion. By contrast, the high ground acceleration associated with the Morgan Hill earthquake was measured at a site aligned with the unilateral rupture expansion and close to a secondary energetic source of seismic radiation. Thus, the Morgan Hill data does not undercut the Appeal Board's discussion of focusing.

As for high stress drop, there too the Appeal Board found that there were no indications of high stress drop regions on the Hosgri Fault, not that a high stress drop phenomenon does not exist. The Appeal Board's conclusion is based in substantial part on the determination that the Hosgri Fault would exhibit strike slip-dip slip motion rather than thrust motion. Joint Intervenors point out that recently published evidence by Crouch and others indicates that the Hosgri Fault may be a thrust fault and may be closer to the plant than previously believed.

The Commission was briefed on the Crouch data at a public meeting on whether to authorize the low-power license for Diablo Canyon. At that meeting, Mr. James Devine of the USGS expressed the opinion that even if the Hosgri Fault were a thrust fault, the seismic design basis for Diablo Canyon was probably adequate. As he put it, the new data was not "stop the presses" information. PG&E notes that at the Licensing Board hearings several experts testified that the Hosgri fault had a component of reverse faulting and that expert testimony included a diagram showing the fault plane in the position predicted by the new information. PG&E also presents expert opinion that the Hosgri Fault is not substantially closer to the plant than previously believed. The NRC staff notes that the Newmark Spectrum for Diablo Canyon already accounts for the type of motion associated with a thrust rupture at depth which propagates up-dip.

At this point any uncertainty concerning the character of the Hosgri Fault should be resolved through the normal scientific peer

review process.³ Indeed, in a letter of June 20, 1984, the ACRS stated that the new data on the character of the Hosgri fault do not require "immediate revision of the seismic design basis for Diablo Canyon."

Finally, Joint Intervenors contend that recent earthquake activity in California's central coastal region contradicts the Appeal Board's conclusion that the plant is situated in an area of low to moderate seismicity. PG&E has provided contrary expert opinion, and the staff notes that the six earthquakes referred to by Joint Intervenors occurred over a widely scattered area. Under these circumstances, Joint Intervenors have not demonstrated the necessary probability of success on the merits on this point.

b. Other Issues

Joint Intervenors' stay request of July 25, 1984 raises five other issues which have been raised before the Commission in earlier stages of this proceeding. Because Joint Intervenors present no new perspectives on these issues, the Commission responds to them briefly below.

(i) Class Nine Accidents - Once again Joint Intervenors contend that the Commission violated the National Environmental Policy Act of 1969 and its own regulation by not explicitly considering Class

³This would include a reevaluation of the Safe Shutdown Earthquake should the character of the fault be definitively determined to be of the thrust variety. Pending such a reevaluation, there is no basis for the Joint Intervenors' assumption that an SSE of magnitude 7.5 would still be appropriate for a different type of fault motion.

Nine accidents in the Final Environmental Statement for Diablo Canyon. The Commission has replied to this argument most recently in its brief filed in the U.S. Court of Appeals in the D.C. Circuit in reply to Joint Intervenors' petition for review of the Diablo Canyon low-power license. SLOMP v. NRC, (No. 81-2034 and consolidated cases). Joint Intervenors have added nothing new to their argument that they are likely to prevail on the merits on this issue. The Commission finds that this issue does not warrant a stay of the full-power proceeding.

(ii) Earthquake Emergency Preparedness - as stated above in item 9, the Commission has addressed this issue by a separate decision.

(iii) Operator Training and Experience - As with Joint Intervenors' argument on Class Nine Accidents, nothing new is presented on this issue. And as with Class Nine Accidents, the Commission addressed this issue in its brief on the petition for review of the low power license.

In any event, the circumstances regarding this issue have now changed radically so as to render it moot. By virtue of their operating the plant at low power, the operators now have extensive actual operating experience at the facility. Moreover, the staff has reported that the operators have discharged their responsibilities competently and safely and are capable of continuing to do so.

(iv) FEMA Finding On State Emergency Plan - As discussed above in item number one regarding the Licensing Board's decision in LBP-82-70, the Director, NRC has reported that FEMA has made a finding

that the California State Emergency Plan for Diablo Canyon is adequate. Accordingly, this issue cannot support a motion for a stay.

(v) Quality Assurance - Joint Intervenors' arguments here essentially repeat the arguments in their petitions for review of ALABs-756, 763 and 775. A Commission majority does not favor the petitions for review of ALAB-756. As for the petitions for review of ALAB-763 and ALAB-775, this is no different from the pendency of any exceptions before the Appeal Board when the Commission conducts an effectiveness review of a Licensing Board's decision. While the Commission has determined that the petition for review of ALAB-763 and ALAB-775 do not raise issues warranting a stay, this determination is without prejudice to the Commission's ultimate disposition of the petition.

Joint Intervenors have also made no showing of irreparable injury. Their contention that operation of the plant will create a substantial risk is based on their conclusion that there is no longer any reasonable assurance that the seismic design of the plant is adequate. As discussed above, this conclusion is not supported.

Conclusion

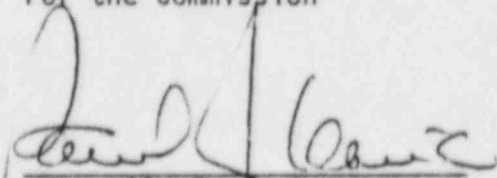
For the reasons set out above, the Commission has determined that the full power license for Diablo Canyon Unit 1 may be issued by the Director, NRR. However, this Order shall not become effective until 5:00 p.m., Eastern Daylight Time, August 17, 1984, to allow for the orderly processing of any request for expedited judicial review. Until then no full power license will be issued.

Commissioner Zech did not participate in this decision. An explanatory statement by Commissioner Zech is attached. Commissioner Asselstine dissents, and his separate statement is also attached.

It is so ORDERED.



For the Commission


SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.

this 10th day of August, 1984.

EXPLANATORY STATEMENT OF COMMISSIONER LANDO W. ZECH

The history of the licensing of the Diablo Canyon Nuclear Power Plant is complex and protracted. The record of the proceeding is voluminous. I have reviewed a considerable part of the record. I have visited the Diablo Canyon plant. I have talked to the utility management personnel, including some of the operators. However, the time available to me as a Commissioner has simply not been sufficient for me to satisfy myself that I have read, analyzed, and adequately reflected upon all the relevant material. If my vote were needed, either yea or nay, I believe I would need several more weeks before I could come to a decision. Therefore, I have concluded that I cannot vote today on the full power license decision for Diablo Canyon.

DISSENTING VIEWS OF COMMISSIONER ASSELSTINE

I am unable to vote in favor of the issuance of a full power operating license for Diablo Canyon Unit 1 at this time because of the Commission's treatment of two issues: the complicating effects of earthquakes on emergency planning, and the re-evaluation of the adequacy of seismic design for small and large bore piping in the plant. The Commission's decision regarding the effects of earthquakes on emergency planning is being addressed in a separate order, and my views on the Commission's handling of this issue will be set forth in detail there. Suffice it to say here that this issue is material to the Commission's licensing decision in the Diablo Canyon case and that the Commission is compelled as a matter of law and logic to afford the parties to this proceeding an opportunity to litigate the issue prior to authorizing the issuance of a full power license for the plant.

With regard to seismic design, the record of this proceeding, allegations filed by former workers at the site and subsequent NRC inspections, including those performed by NRC inspector Isa Yin, all document a widespread quality assurance breakdown in the seismic design work for small bore piping in the plant. This quality assurance breakdown raises serious questions regarding both the adequacy of quality assurance for other design activities for the plant and the adequacy of the Independent Design Verification Program (IDVP). Those questions are of special importance for the IDVP, which was established to verify that the seismic design problems that led to the Commission's suspension of the Diablo Canyon low power license had been identified and corrected.

These questions existed at the time that the Commission authorized the reinstatement of the low power license for Diablo Canyon Unit 1. When I voted to permit low power operation, it was with the understanding that Mr. Yin and other elements of the NRC staff were in agreement on the measures needed to resolve those questions prior to a Commission decision authorizing full power operation. I am particularly disappointed in the staff's subsequent handling of Mr. Yin's concerns. Given the special significance of seismic design for this plant and the extent of the quality assurance breakdown in the seismic design program for portions of the plant, it was incumbent on the NRC staff to make every effort to verify that all significant design errors had in fact been identified and corrected. Based upon the continuing concerns expressed by Mr. Yin regarding the adequacy of the staff's verification efforts and the extent of the seismic design quality assurance breakdown in the case, I am not yet satisfied that the Commission has the information needed to conclude, with a high degree of confidence, that all significant seismic design errors for this plant have been identified and corrected. The Agency's handling of these questions is particularly unfortunate since the adequacy of the seismic design of the plant is a matter of public concern and since it appears that an adequate design verification program to resolve Mr. Yin's concerns could be completed in a matter of a few weeks.