

1/12/76

PROGRAM TO ESTABLISH BASIS TO LICENSE DIABLO CANYON

BACKGROUND AND PROPOSED PROGRAM

Construction permits were issued for Diablo Canyon 1 & 2 in April 1968 and December 1970, respectively. Unit 1 is nearly completed; Unit 2 is a year or so behind. The SSE for the site was set by Dr. Newmark, the USGS, and the U. S. Coast & Geodetic Survey. The value selected was 0.4g and the plant has been constructed to that value. The OL applications for both units were docketed in October 1973. Our review was essentially completed by January 1975; at that time we recognized that on the basis of new evidence the SSE would be increased. The staff believed that the USGS would concur with a site "g" value of 0.5g and we had done sufficient work to convince us that the plant could safely withstand such an earthquake. On January 28, 1975, we were surprised by a USGS report that concluded that an acceleration of 0.5g was in its opinion inadequate for the site on the basis of present information.

At that time DRJ recommended that two approaches be taken to resolve the issue. First, continue to acquire additional information to convince the USGS of the adequacy of a 0.5g SSE. Secondly, assume the USGS, at the reviewer level, would remain adamant and seek other means to confirm or modify its finding. The decision was made to pursue only the first approach. Today, we are essentially where we were last January except that the plant is almost ready for fuel loading. Once again we are faced with developing a program to establish a basis to permit a decision to be made on the licensing of Diablo Canyon. We believe it would be imprudent to once again pursue a single path based on acquiring additional information to convince the USGS review team (a relatively few individuals) to modify its current position. We again recommend a multi-faceted approach. The program we would propose to pursue is as follows:

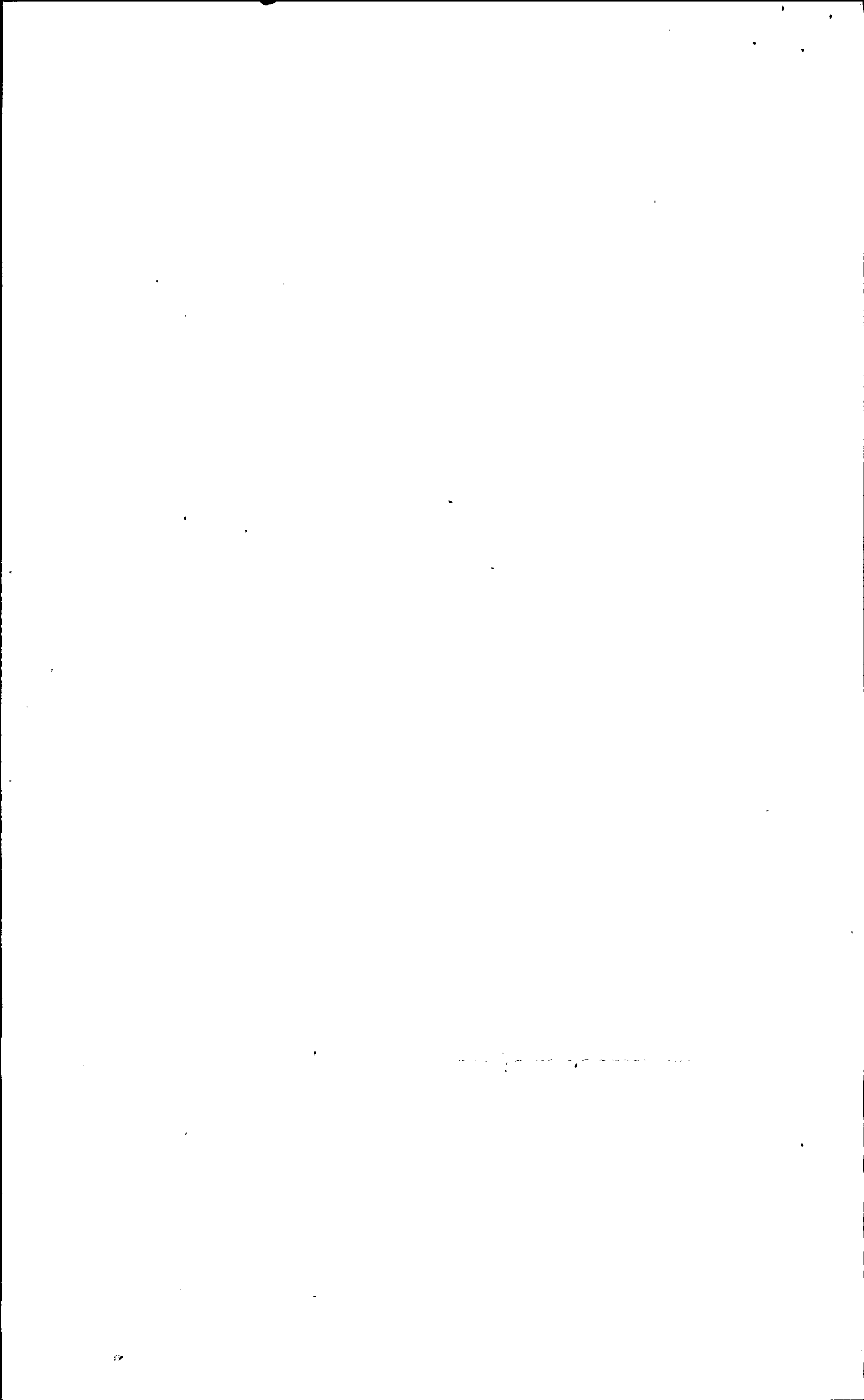
1. Formally request that an independent review be conducted within USGS to confirm or modify the current USGS review team finding. This request might be made by Chairman Anders to the Secretary of the Interior and could, if legal considerations demand, be based on generic West Coast concerns rather than the Diablo Canyon issue alone.
2. Concurrently, form a team of consultants consisting of <sup>sic</sup> men of national stature in the fields of geology, seismology, and seismic design to evaluate the situation. This team might pursue various paths, including:

A PROPOSED PROGRAM FOR  
DIABLO CANYON DISCUSSED  
AT AN INTERNAL STAFF  
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- a. Assume a "great" earthquake could occur as the USGS review implies and demonstrate by logic, evidence, and judgment that the energy transfer to the site would be limited to within the design capabilities of the nuclear plant.
  - b. An independent evaluation of the evidence to arrive at a conclusion on the SSE that might be compared to those of the USGS review team and the panel of experts established by the licensee.
  - c. Assess the prospects for upgrading the plant design to higher SSE values by plastic analysis and/or structural modifications and testing.
3. Concurrently, form a task force to review the current status in an attempt to determine if a probabilistic basis can be established to license Unit 1 for an interim period of operation while the other reviews are being conducted.
  4. Concurrently, inform the licensee of the course of action we are pursuing and require him to pursue similar and/or alternative courses so that our final decisions may be made on the basis of our evaluation of his efforts supplemented by our independent assessments.

#### IMMEDIATE ACTIONS

We are planning to take immediate actions to initiate some of the approaches indicated above. Specifically we plan to:

1. Meet with NRC management to obtain approval of the general approach or to obtain an approved revised program.
2. Meet tomorrow (at Chicago, Illinois) with Dr. Newmark to begin to formulate the team of consultants discussed in item 2 above, and the task force discussed in item 3 above. At the same meeting Dr. Newmark will make a presentation to us so that we may clearly understand the bases and limitations of his recent paper on seismic design margins and probabilities of structural and mechanical failures.
3. Meet here, later this week, with the licensee to advise him of the current status of review and of the program we intend to pursue to establish a basis for a decision.

In view of the seriousness of the problem, it is essential that strong regulatory management be imposed immediately to "manage" the team of consultants and the probability task force. These managers should be the highest level managers that we can practically assign to the tasks.

#### ASSOCIATED CONSIDERATIONS

In developing a program to follow to resolve the Diablo Canyon problem, consideration should be given to:

1. The impact of our decisions on the nation's energy problems and programs. The impact of potential denial for operation of a plant approved for construction cannot be underestimated, especially where the basis for denial is in controversy.
2. The impact of our decisions on the moratorium before the California voters.
3. The impact of our decisions on the viability of continued operation of plants at other sites with altered seismological bases, such as San Onofre, Pilgrim, etc.
4. The impact of our decisions on the viability of continued operation of plants where it is uncertain that the capability exists to withstand altered design bases in areas other than seismic design, such as containment structural design, pipe whip inside containment, spurious valve failures, etc.

