



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 7 1976

DOCKET NOS. 50-275
AND 50-323

APPLICANT: PACIFIC GAS AND ELECTRIC COMPANY (PG&E)

FACILITY: DIABLO CANYON NUCLEAR POWER STATION, UNITS 1 AND 2 (DIABLO CANYON)

SUMMARY OF ACRS SUBCOMMITTEE MEETING HELD ON MAY 21, 1976

An ACRS Subcommittee meeting regarding Diablo Canyon was held in Avila Beach near San Luis Obispo, California on May 21, 1976. The agenda is provided in Enclosure No. 1. A list of attendees is given in Enclosure No. 2.

BACKGROUND

The U. S. Geological Survey (USGS) had concluded that a magnitude 7.5 earthquake could occur on the Hosgri fault. Based on this the staff had requested that PG&E evaluate the plant's capability to withstand such an earthquake, which is more severe than the earthquakes for which the plant was originally designed. Based on the recommendation of another consultant, Dr. Newmark, the staff had determined an effective site acceleration of .75g to be used in engineering design calculations for the reevaluation and had provided certain criteria for the reevaluation. These positions were documented in Supplement No. 4 to the Safety Evaluation Report on May 11, 1976.

PG&E did not agree with the postulated earthquake of magnitude 7.5. Nevertheless, the company was proceeding with the reanalysis.

SCHEDULE/FUTURE MEETINGS

We stated that the staff presentations on deriving, from the USGS recommendation, an effective site acceleration to be used in design would be deferred until our consultant, Dr. Newmark, could be available. He would be available for a full committee meeting on June 4, 1976 and we hoped to publish his report prior to June 25, 1976. The staff and PG&E expressed a desire to have the full committee consider Diablo Canyon on June 4. The subcommittee chairman, Dr. Okrent, stated that another subcommittee meeting had been scheduled for June 25 and June 26. He did not believe that the full Committee would consider Diablo Canyon on June 4.

JUN 7 1976

Dr. Okrent requested that the staff provide certain descriptive material in a form that could be reviewed prior to the next subcommittee meeting. The material should include a rather complete discussion of how one gets from the postulated earthquake to effective site acceleration and forcing functions to be used in design calculations.

SEISMICITY

Dr. Hamilton made a presentation on geology considerations and Dr. Smith made a presentation on seismicity considerations for PG&E. The staff and USGS provided brief statements.

Dr. Page and Dr. Thompson asked if further details on the Obispo tuff and the tuff found in an offshore well weren't needed before a correlation between these tuffs could be used to eliminate the possibility of a major lateral slip on the Hosgri fault. Dr. Thompson and Dr. Trifunac asked questions about how the Hosgri and San Simeon faults could be considered as separate faults, since they are only separated by about 2 1/2 miles. Dr. Hamilton stated that he uses geologic history as the key to future expectations, and in his view the geologic evidence indicated that the two faults do not act as one.

Dr. Philbrick asked why the USGS and PG&E could not discuss this matter further and obtain additional information as necessary until agreement had been reached. We stated that this had been tried for some time, and we would be willing to do more of it if the applicant wished to do so. However, time had run out so we had taken a conservative position on the postulated earthquake which allowed the applicant to go forward with a reanalysis of the plant.

SEISMIC DESIGN

Mr. Sihweil and Dr. Kapur gave presentations for the staff on seismic design considerations.

In some cases, for the same earthquake, instruments located at the foundation of large buildings have shown smaller responses than those located on the ground surface nearby. Theoretical considerations published by Yamahara and Scanlan predict a reduction in the response of structural foundations relative to the free field motions and we had used these theoretical considerations in developing the criteria for the reevaluation. We believed these theoretical reductions were supported by data described above where the foundation motion was less than the ground surface motion. Dr. Trifunac asked if the opposite might be true, that is, if the instruments at the ground surface were showing an amplified motion rather than the structural foundation showing a reduced motion.

JUN 7 1976

- 3 -

Dr. Pickel asked if, when ductility is allowed in structural calculations, an underprediction of the floor response spectra (for the purpose of component and system design and qualification) could occur.

D. P. Allison
Dennis P. Allison
Light Water Reactors
Branch No. 3
Division of Project Management

Enclosures:

1. ACRS Agenda
2. Attendance list

cc: Service list