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SECOND SECTION

## PG&E says 90-mile fault no danger to Diablo plant

By Bruce Kyse  
Staff Writer

Pacific Gas & Electric Co. geologists believe a 90-mile-long fault that runs within five miles of Diablo Canyon is "capable" of producing an earthquake, but not one large enough to damage the \$700 million nuclear power plant.

The offshore geology near Diablo Canyon and data collected from offshore studies during the last year were primary concerns of the Atomic Energy Commission's Advisory Committee on Reactor Safeguards at a meeting with PG&E officials in Washington D.C. on Sept. 12.

The transcript of the Sept. 12 meeting were released last Friday. When asked about the 90-mile fault last week, PG&E officials said only that they assumed the presence of some faults offshore of the plant and designed the plant to withstand the largest credible earthquake in the area. All other questions were referred to the committee transcript.

PG&E geologist Douglas Hamilton told the committee that new data on the fault indicates it has been seismically active several times in the last 100 years.

But a company seismologist said the plant was designed to withstand the greatest credible earthquake before the 90-mile-long fault was officially mapped

in 1969. PG&E still believes the plant will withstand the largest earthquake the fault can produce.

The committee meeting was held just 12 days before a mild earthquake shook the nuclear power plant site. The Sept. 24 earthquake was centered near the 90-mile-long Hosgri fault (named by the U.S. Geological Survey).

PG&E refers to the same fault as the Santa Maria Basin East Boundary Fault structure, and has placed it between 2½ and 4½ miles from the plant.

Because of the Sept. 24 earthquake, power plant opponents have called for a delay in construction at the power plant until further information on the fault structure can be collected.

The Hosgri Fault—its characteristics and length—had not yet been mapped when PG&E began construction on the first reactor at Diablo Canyon. Neither PG&E nor the U.S. Geological Survey, which is a consultant for the AEC, did any offshore research prior to the design of the power plant.

The meeting with the safety committee and PG&E was the first for several months and the first one to discuss in length the offshore geology at the plant site. Members of the committee, particularly Dr. Shailer Philbrick, a geologist retired from Cornell University, pursued the geology of the offshore

area for several hours with PG&E officials.

When Philbrick asked Hamilton whether he thought the fault could be classified either active or inactive by AEC definitions, Hamilton answered "no."

Hamilton said the fault could only be classified as "capable." By AEC definitions, capable means that the fault has shown ground displacement within the last 35,000 years or can be associated with earthquake epicenters in very recent years.

Hamilton said there is a "strong possibility" of there having been movement at some points along the system at least once in the last 35,000 years, and evidence of surface displacement within the last 5,000 years. (A fault can cause an earthquake but not necessarily cause a displacement in the ocean floor.)

Stewart Smith, PG&E seismologist, told the committee that "since our basic assumption at the beginning was that all of the faults in the area had to be presumed capable, in the absence of evidence to definitely prove them inactive, the discovery of a fault several miles offshore provided no real surprise."

Smith added that PG&E assumed the offshore geology would be similar to the geology onshore, where there are several small faults in the area

of Diablo Canyon.

However, the 90-mile-long Hosgri fault is the longest fault in the area of the plant, more than three times the length of the Edna Fault (the next closest fault) which runs about four miles from Diablo Canyon.

Smith said splinters of the fault system come as close as 2½ miles from the plant. "The data is such that there isn't any resolution to know what the effects would be (of an earthquake). The effects would be significantly different if it's 2½ miles rather than 3½ miles, for example."

In its final environmental impact report for Unit 2, PG&E says the greatest ground acceleration would be caused by an aftershock of an earthquake on the San Andreas Fault, some 45 miles from the plant. If the aftershock were centered directly below the plant, it would cause a ground acceleration of .2 Gs, PG&E said. The plant was designed to withstand a ground acceleration of .4 Gs.

Smith said the company believes the type of faulting that occurs on the Hosgri line would produce a lower ground movement than the plant was designed to withstand.

The safety committee will continue discussion of the geology near Diablo Canyon at a meeting later this fall when more information on the offshore faults is completed.