

# The New York Times

Sunday, February 1, 1976

## COAST QUAKE FEAR MAY BAR PROJECT

New Atomic Power Facility  
Found to Be Two Miles  
From Geological Fault

By GLADWIN HILL

Special to The New York Times

LOS ANGELES, Jan. 31—The inauguration of the largest pending atomic power project on the West Coast may be delayed or even prevented by the belated discovery of possible earthquake hazards.

The project is the billion-dollar Diablo Canyon nuclear generating facility of the Pacific Gas & Electric Company near San Luis Obispo, 200 miles north of Los Angeles.

One generating unit that is virtually completed had been tentatively scheduled for operation next fall. Now no one knows when it may be approved.

What caused the problem was the recent pin-pointing of a geological fault in the ocean two miles from the coastal plant. This in turn raised estimates of the possible earthquake magnitude that the plant might be subjected to.

This is the third time in 15 years that the company has been plagued by earthquake problems. Plans for a plant at Bodega Bay just north of San Francisco had to be scrapped after experts questioned its proximity to the San Andreas Fault, which runs virtually through Bodega Bay.

A projected plant at Point Arena, 100 miles north of San Francisco, was shelved because of "unresolved geological and seismological questions."

Spokesmen for the power company and for the Nuclear Regulatory Commission, which licenses atomic plants, confirmed that the seismic safety factors in the Diablo Canyon plant were under continuing study by the company and the N.R.C.

The company said that it was "confident that the plant can withstand any earthquakes that may occur." Others are not so confident, however.

The plant, situated 12 miles southwest of San Luis Obispo, was designed in the 1960's to withstand an earthquake originating immediately underneath it and of a magnitude of 6.25 on the standard Richter scale.

The United States Geological Survey, which has been studying the situation for the N.R.C., has suggested that the recently discovered fault might cause an earthquake of 7.5 magnitude only a short distance away.

An earthquake of magnitude 7 is 100 times as forceful as one of magnitude 6. The 1906 earthquake at San Francisco, 200 miles north of the power plant site, was magnitude 8.2.

Construction of the plant started in 1969, in the belief that the closest fault was 20 miles out. In 1970, two Shell Oil Company geologists reported discovering another fault—a crack in the earth—90 miles long and seven miles off shore. It paralleled the shore, they said, and apparently had ramifications extending to within two miles off shore.

The implications of this finding were supposedly covered in a "final safety analysis report"—a 12-volume study submitted in 1973 by the utility to the Atomic Energy Commission, N.R.C.'s predecessor. After some initial studies, the utility announced in January 1974 that it would not stop construction on the plant until there was fuller information on whether there had been any earthquakes in the area in recent geologic times.

The Geological Survey continued its investigation, which culminated in a study performed for the A.E.C. by Dr. Clarence A. Hall Jr., chairman of the geology department at the University of California at Los Angeles. The study was completed last year.

Dr. Hall concluded that the geological anomaly was 80 to 150 miles long, had undergone up to 50 miles of movement in recent times and "could be a potential hazard to any engineered structure located along the coast from San Simeon to the vicinity of Purisima Point."

There was an earthquake of 7.3 magnitude in the area in 1927, but there is still some uncertainty about its source.

Dr. Hall's findings, previously submitted to the Geological Survey, were reported in an article in the Dec. 26 issue of Science Magazine.

A Pacific Gas Company spokesman said that an assessment of the Hall findings were included in the last of 38 amendments to the company's safety analysis report, submitted to the N.R.C. last Dec. 22.

Various N.R.C. officials have said informally that the agency's final ruling might be anything from acceptance of the company's safety estimate to insistence that the plant be re-engineered, a matter of questionable economic feasibility.

The first load of nuclear fuel elements for the plant has been delivered by truck from Columbia, S. C.

The plant is in a remote canyon seven miles from the nearest habitation. Its two generating units would produce 2,260,000 kilowatts—enough electricity for a city of two million people.

The other principal atomic power facility under construction on the coast is a unit at the Southern California Edison Company's San Onofre plant near San Diego.