

APR 21 1978

SD-  
275/323

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- H. Denton
- R. Mattson
- V. Stello

Donna J. Caffiero  
485-A Piercy Road  
San Jose, CA 95138

\*With copy of incoming

Dear Ms. Caffiero:

Thank you for your letter of September 27, 1977. I apologize for taking so long to answer it.

You asked about my feelings and opinions on building the Diablo Canyon Nuclear Power Plant three and one half miles from the Hosgri fault.

Construction of the plant began in 1968. The existence of the Hosgri fault came to light in 1971. In 1973, in connection with the Commission's operating license review, further intensive studies of the Hosgri fault began. In 1976, as a result of these studies, the NRC staff advised Pacific Gas and Electric Company (PG&E) that the plant's earthquake resistance should be reevaluated to determine what modifications would be necessary to withstand a more severe earthquake than had been considered in the original design. PG&E has nearly completed this reevaluation and the NRC staff is now reviewing it. In the meantime, PG&E is installing the modifications and expects to complete the work this summer.

The plant was originally designed for severe ground shaking. The ground shaking that is being assumed for the reanalysis is very severe. When the reanalysis and modification to the plant to meet this new design basis are completed to the satisfaction of the NRC staff, the staff concludes that an adequate level of safety at this distance from the Hosgri fault will be provided. Personally, I agree with this conclusion.

When the NRC staff's review is complete, the entire matter will be reviewed by the independent Advisory Committee on Reactor Safeguards. It will then be considered at public hearings by the Atomic Safety and Licensing Board, which will decide whether or not an operating license should be issued. During this process the matter will be fully aired and will be scrutinized by numerous competent geologists, seismologists and engineers including eminent independent consultants to the Commission. The Commission's regulations require that the plant be designed to safely withstand the site's maximum earthquake potential. This must be demonstrated before an operating license can be issued.

OFFICE >						
SURNAME >						
DATE >						

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One point worth mentioning is that the Hosgri fault does not run through the site. Thus, there is no question about the ground rupturing under the plant which would present a unique or possibly impractical design problem. We are dealing with a question of designing the plant for a certain level of assumed ground shaking which has feasible design solutions.

You also asked about converting the Diablo Canyon plant to non-nuclear uses. This is discussed in the attached letter from the NRC staff to Anne and John Syer.

I trust you will find this information responsive to your questions.

Sincerely,

Original Signed By  
Dennis P. Allison

Dennis P. Allison, Project Manager  
Light Water Reactors Branch No. 1  
Division of Project Management

Enclosure:  
Letter dated February 28, 1978  
to Anne and John Syer

OFFICE	DPM:LWR #1	DPM:LWR #1	ELO			
SURNAME	DAllison:tIb	JSto				
DATE	4/13/78	4/13/78	4/28/78			



ENCLOSURE

FEB 28 1978

Docket Nos. 50-275  
and 50-323

Anne and John Syer  
1921 Hope Street  
San Luis Obispo, California 93401

Dear Mr. and Ms. Syer:

I am pleased to respond to your November 29, 1977 letter to Congressman Leon Panetta regarding the cost and feasibility of converting the Diablo Canyon Nuclear Generating Station to a non-nuclear generating station. Congressman Panetta has asked me to respond to your letter directly.

Before I respond specifically to those questions in your letter, I believe that it would be helpful to review the status of the operating license application review for Diablo Canyon.

The Atomic Energy Commission (which preceded the Nuclear Regulatory Commission) granted construction permits for Units 1 and 2 of the station on April 23, 1968 and December 9, 1970, respectively. Both units are essentially now built, and the NRC is currently in the final stages of the hearing process for the operating licenses. At present, a decision regarding the issuance of the operating licenses is scheduled for September 1978.

Since the facility is complete, a conversion to fossil fuel would entail both economic and temporal losses. Some of these losses could be reclaimed through the use of existing, in-place components, since it is possible from an engineering standpoint to re-use such things as the cooling water intake and discharge systems, and the generator system. However, the more expensive reactor-related systems (e.g., the reactor vessels and containment buildings) would have to be dismantled and replaced with fossil fueled boilers. These boilers would have to be custom designed to fit the nuclear plant's turbine design specifications (e.g., temperature and pressure), since those for similarly sized fossil plants are quite different.

These modifications would of course take time and money to complete. Existing components would have to be either salvaged or scrapped, and new components designed, bought, and installed. The loss in power



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generation would also have a significant economic impact since the utility would have to purchase power or utilize oil-fueled facilities. (Pacific Gas and Electric Company has estimated that the operation of both Diablo Canyon's reactors for power generation would save approximately 20 million barrels of oil per year. This translates into approximately \$750,000 per day, in current fuel costs.)

Thus, although from a purely technical standpoint Diablo Canyon could be converted into a fossil fuel facility, the economic costs and associated delays would make this an undesirable undertaking.

Your suggestion of converting the facility to fossil fuel is based on the premise that "[c]onverting Diablo is likely to be cost effective because the costs of storing nuclear waste and guarding the spent plant for hundreds of years will not have to be assumed by American taxpayers." This premise is in error in that these costs are included when the cost-benefit balance is struck for the proposed facility. Specifically, when staff compares the energy cost of a nuclear facility with that of a similarly-sized fossil facility, the costs of decommissioning the plant and of storing the spent fuel are very small (viz., approximately 0.1 mill/kWhr and 1 mill/kWhr, respectively) compared to the total cost of power generation (on the order of 50 to 60 mills/kWhr). Thus, these costs are accounted for, and are considered when the conclusion is made as to the overall economics of the facility and its alternatives.

In addition to the above information regarding costs, we are enclosing two documents related to environmental and health effects of using coal for generating electricity.

I hope that the above information is responsive to your needs. We appreciate the opportunity to respond, and hope that you will feel free to contact us if any additional information is needed.

Sincerely,

ORIGINAL SIGNED  
BY WILLIAM J. DIRKS  
ACTING EXECUTIVE  
DIRECTOR FOR OPERATIONS

Enclosures:  
NUREG-0332 and NUREG-0252

cc: The Honorable Leon E. Panetta  
United States House  
of Representatives  
Washington, D.C. 20515



FROM: Donna J. Caffiero  
 485-A Piercy Road  
 San Jose, Ca. 95138

DATE OF DOCUMENT: 9/27/77  
 DATE RECEIVED: 10/15/77  
 NO.: NRR-2023

TO: Dallison

LTR. X  
 MEMO:  
 REPORT:  
 OTHER: Allison 11-11-77  
 ACTION NECESSARY  CONCURRENCE   
 NO ACTION NECESSARY  COMMENT  DATE ANSWERED: 11/1/77

CLASSIF.: POST OFFICE  
 REG. NO.:

FILE CODE:

DESCRIPTION: (Must Be Unclassified)  
 Concern re Hosgri Fault  
 at Diablo

REFERRED TO	DATE	RECEIVED BY	DATE
Vogel	10/18/77	INCOMING LETTER	
Copy to:		TO DOCKET FILES FOR	
EGCase		PROPER DISTRIBUTION	
DCrutchfield			
HDenton			
RMattson			
VStello			
PDR 50-275			

ENCLOSURES:  
 For Danny to sign,  
 w/appropriate comments  
 and OELD.  
 dr

REMARKS:  
 Please place MMGross on distribution  
 for any reply. Also return original  
 letter & travel ticket to MMGross when  
 ready.



September 27, 1977

Dear Mr. Allison:

As a human being first, and as Project Manager of the Diablo Canyon Nuclear Power Plant second, I would like to know your feelings and opinions on building such a plant with the knowledge of the Hosgri Fault being only three miles away.

After reading an article about the Teton Dam tragedy stating that it was built in an earthquake fault area, it appears disasterous that history could repeat itself in possibly a more devastating way. Could it be feasible to dispense with the egos and 1.2 billion dollars involved in the construction of this plant? I feel that the possibility to channel the persons and money into an area where the possibilities of natural disaster is much less would be more beneficial to all. Could the plant at Diablo Canyon be disassembled to some degree to be used on a safer site and the remaining Diablo Canyon plant be converted and used for some other program, and that program not necessarily having to be of Nuclear Regulatory Commission? The amount of money loss by disabling the Diablo Canyon Plant and cost to build another is inconsequencial when considering what could happen to all of life if a nuclear tragedy occurs.

Why dare and defy nature?

Sincerely,

Donna J. Caffiero  
485-A Piercy Road  
San Jose, Ca. 95138

