



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

CE

JUL 14 1981

Docket Nos. 50-275/323

Note to H. R. Denton, NRR

In reference to your note of July 6, 1981, the Diablo Canyon breakwater structure has been found acceptable for low power operation as noted in Section 2.4 of Supplement No. 13. However, we also stated in Supplement No. 13 that this matter would be satisfactorily resolved prior to the issuance of a full power license. Dr. Fliegel of our staff and our consultant Dr. Robert Sorenson of the Coastal Engineering Research Center conducted a June 17, 1981 site visit to (1) examine the breakwater structure and (2) to discuss the safety implications of the damaged breakwater and the proposed resolution. Dr. Fliegel stated in his trip report (copy attached) that the applicant and its consultant now have a better understanding of the type of information and analysis that must be provided to the NRC staff. The applicant is fully aware of our concerns about this matter being resolved prior to full power issuance and is aggressively pursuing its resolution.

[Signature]
Darrell G. Eisenhut, Director
Division of Licensing

Enclosure:
As stated

↑
*Pls push along
toward resolution
so that if and
when a decision
is made, we are not
on a critical path
on this issue.*
cc: Volker *Q*
7/14

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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

M. Fliegel

JUL 29 1981

Docket Nos. 50-275/323

MEMORANDUM FOR: George Lear, Chief
Hydrologic and Geotechnical Engineering Branch
Division of Engineering

FROM: Myron Fliegel, Leader
Hydrologic Engineering Section
Hydrologic and Geotechnical Engineering Branch
Division of Engineering

SUBJECT: STATUS OF EVALUATION OF DIABLO CANYON INTAKE STRUCTURE
FLOODING - BREAKWATER DAMAGE

This status report is based upon information obtained by our consultant, Dr. Sorenson of the Coastal Engineering Research Center (CERC). It should be understood that the information has not been submitted to NRC and cannot, therefore, be considered as official.

Dr. Omar Lillevang, PG&E consultant, and his staff are studying the cause and effect of the damage to the breakwater. Physical model tests of the intake coves' response to high water and waves are scheduled to begin in mid-August. The first set of tests will be performed without the breakwater. Maximum wind waves (which are limited by nearshore breaking) from various directions will be tested to determine the most severe with respect to the intake structure. Similar tests will be performed for the condition of the maximum tsunami coincident with waves of annual severity. It is our understanding that the applicant hopes to either show that the intake structure can withstand the most severe of these conditions without loss of function or can be modified to do so. This will be dependent upon the maximum runup on the intake structure air vent stacks.

If the runup is less than the +30 feet mean lower low water (MLLW) level of the air intake, the applicant will argue that the breakwater is not needed for plant safety. If the runup is greater than +30 feet MLLW, the applicant will consider modifying the vent stacks to protect them to the appropriate level. The practicality of the latter course would depend upon the actual runup elevation determined. Analysis previously performed by the applicant indicated a maximum runup of over +44 feet MLLW during the combined tsunami - annual wave event for the no breakwater condition.

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Tests will also be performed with the breakwater modeled to try to duplicate the actual storm damage. If the applicant concludes that the breakwater is necessary to protect the intake, i.e., wave runup without the breakwater is too severe to be able to modify the intake to withstand, further testing will be needed.

In order for us to proceed with our evaluation the applicant will have to provide us with a report. Dr. Sorenson has agreed to review that report and provide us with comments and questions within 5 weeks of his receipt of the report. Dependent upon the deficiencies in that report another submittal and review may be required before we can close this issue. To that objective, it will be beneficial for Dr. Sorenson and the staff to visit the consultant during the testing program to observe the model, and discuss progress, results, and staff concerns. Meanwhile, one staff site visit and occasional telephone contact have been our source of information on progress.

Original Signed by
Myron H. Fliegel

Myron Fliegel, Leader
Hydrologic Engineering Section
Hydrologic and Geotechnical
Engineering Branch
Division of Engineering

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OFFICE	HGEB:DE						
NAME	MFliegel/mc						
DATE	7/29/81						