

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
UNITED STATES ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

September 12, 1963

Honorable Glenn T. Seaborg  
Chairman  
U. S. Atomic Energy Commission  
Washington, D. C.

Subject: REPORT ON HUMBOLDT BAY POWER PLANT, UNIT NO. 3 --  
PACIFIC GAS AND ELECTRIC COMPANY

Dear Dr. Seaborg:

At its forty-ninth meeting on September 5 and 6, 1963, the Advisory Committee on Reactor Safeguards met with the applicant and AEC Staff to review the request of the Pacific Gas and Electric Company to carry out a fifteen-day test program, which involves a stepwise rise in power to 230 Mw(t). The Committee also reviewed the documents listed below.

A series of experiments and calculations conducted by the applicant has shown favorable behavior of the reactor at presently approved maximum power levels of 165 Mw(t). The applicant, by extrapolation, has indicated the reliability and safety of reactor operation at a proposed power level of 230 Mw(t). With a stepwise approach to power, as indicated in the application, the test can be terminated at any point where proposed limits are attained.

In its previous report on this reactor, the ACRS expressed the opinion that the heat flux relative to burnout should remain conservative pending further study. Since that time a comprehensive correlation has been made which appears conservative and is based on sufficient experimental data to justify a minimum burnout ratio limit of 1.5 as proposed rather than 2.0. Calculations and values from previous tests indicate that the minimum burnout ratio is expected to be 1.84 at the 230 Mw(t) level. Operation at 230 Mw(t) is consistent with the original design basis for this plant.

Honorable Glenn T. Seaborg

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The Committee believes that the proposed test program may be conducted safely and does not constitute an undue hazard to the health and safety of the public.

Sincerely yours,

/s/

D. B. Hall  
Chairman

References:

1. PG&E letter to AEC dated July 3, 1963 transmitting report:  
"Power Operation Testing of the Humboldt Bay Power Plant  
Unit No. 3", dated June 25, 1963.
2. PG&E letter to AEC dated July 18, 1963 transmitting  
Proposed Change No. 12, dated July 19, 1963.