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

March 17, 1965

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

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

Dear Dr. Seaborg:

At its sixty-second meeting on March 11, 12, and 13, the Advisory Committee on Reactor Safeguards met with the applicant and AEC Regulatory Staff to review the proposal to operate the Pacific Gas & Electric Company-Humboldt Bay Power Plant, Unit No. 3 at a power level of 240 MW(t). Also discussed in detail were the proposals for use of a continuous leak rate monitoring system, the proposed integral leak testing schedule, and a proposed change in leakage specifications. The Committee had the benefit of the documents referenced below.

A series of stepwise power-increase experiments carried out by the applicant has indicated the reliability and safety of operation of this reactor up to 230 MW(t) at pressures of 1020 and 1130 psig. Steady-state and transient measurements were made of steam behavior, core thermal and hydraulic performance, and turbine plant performance. It was reported that no significant variations from predictions were observed in these tests. The plant was originally designed for operation of 230 MW(t). Extrapolation of test results to 240 MW(t) does not appear to introduce any safety problems.

The continuous leak rate monitor which is installed and will be evaluated during the coming year is considered to be a desirable adjunct for this reactor. The Committee believes that results from this system, when properly evaluated, may provide the information needed to detect certain changes in containment integrity during operation. Until experience has been gained from testing, however, the Committee is unable to assess the value of this system in measuring leakage rates.

The Committee does not wish at this time to consider any increase in containment leakage limits until the results of the continuous leak rate monitor evaluation and the proposed integral leak test to be conducted before December 1965 are available.

The Committee believes that, in light of the calculated low dose levels that would result from an MCOA with present specified leak rates, a failure to meet specifications during continuous leak rate tests or the December 1965 integrated leak test, would not constitute a serious immediate problem, so long as the difference is by a modest margin.

The Committee discussed with the applicant the question of whether the Humboldt Bay Reactor was adequately protected against tsunamis. The applicant described the present use of the U. S. Coast and Geodetic Survey warning system and its procedures to protect the plant. The Committee believes that further study of this problem is warranted.

The ACRS believes that the Humboldt Bay Power Plant, Unit No. 3 may be operated continuously at power levels of 240 MW(t) and with leak rate monitoring as proposed without creating undue hazard to the health and safety of the public.

Sincerely yours,

/s/

W. D. Manly
Chairman

References attached.