

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

March 4, 1961

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

Subject: REPORT ON LOCKHEED RADIATION EFFECTS REACTOR (RER)

Dear Dr. Seaborg:

At its thirty-second meeting on March 2, 3 and 4, 1961, the Advisory Committee on Reactor Safeguards again reviewed the Lockheed Radiation Effects Reactor at the request of the Division of Licensing and Regulation, letter from R. L. Kirk to T. J. Thompson, February 28, 1961. The Committee received comments from representatives of the Lockheed Aircraft Corporation, the Aircraft Nuclear Propulsion Office of the Division of Reactor Development, and the Division of Licensing and Regulation. At this time the ACRS sees no reason to change its opinion, previously expressed in a letter to the Chairman of the Commission, Dec. 10, 1960, that continued operation of this reactor at 10 MW thermal power in its present design form can only be justified for work essential to the national defense. The Committee believes that the hazards to the public from operating this reactor at its designed power and in its present unshielded and uncontained condition are greater than those generally acceptable for licensed reactor facilities. Thus there must be compelling reasons for assuming this additional risk.

During the discussion, the applicant indicated his desire to operate the reactor under restricted conditions. Capability for such limited operation appears to be needed in order to retain a competent operating crew. He intends to re-examine whether

March 4, 1961

it would be worthwhile to him to add sufficient confinement and shielding to reduce the hazard at full power operation to acceptable levels. The ACRS concludes that there is reasonable assurance that this reactor can be operated without undue risk to the health and safety of the public provided (1) the power is limited to one megawatt thermal at which level it is highly unlikely that the fuel will melt even if the coolant is lost, and (2) the excess reactivity be limited to the minimum required for operation at this stated power level. It is, of course, assumed that the present procedural safeguards and environmental surveillance will continue.

Sincerely yours,

/s/

T. J. Thompson
Chairman

Reference:

1. Letter from R. L. Kirk (DL&R) to T. J. Thompson (ACRS), dated February 28, 1961.

cc: A. R. Luedecke, GM
W. F. Finan, ACMRS
H. L. Price, Dir., DL&R