

APR 22 1970

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File (Docket No. 50-172)

THRU: R. J. Schemel, Chief, ORB #1, DRL

SECOND SUPPLEMENT TO SAFETY REVIEW FOR CHANGE NO. 7 TO THE LOCKHEED
RADIATION EFFECTS REACTOR (RER) TECHNICAL SPECIFICATIONS

By telephone on April 21, 1970, Mr. Floyd Amend indicated that he and Mr. Harry Thomas agree to install an additional automatic reactor scram in accordance with the IEEE Criteria for Nuclear Power Plant Protection Systems (August 30, 1969), except for paragraph 4.12 which relates to operator bypasses. The additional scram would consist of a mechanically actuated device which would scram the reactor if its centerline is raised to an elevation higher than ten feet below the surface of the pool. A bypass will be provided so that the reactor can be operated at higher elevations when entry is not required by an operator to the area within 500 feet of the reactor.

Paragraph 4.12 requires that a bypass be automatically removed when permissive conditions are not met. In lieu of this requirement, Lockheed-Gerard proposed that bypass control be administered and vested in the shift supervisor. This proposal is philosophically the same as bypass control for access of personnel at shift change. The reactor, if operating, must be submerged by four feet or more. Electrically locked doors are controlled from the console, and this control bypasses the scram which would result if a door were opened by some other means.

Normal dose rates are 12 mR/hr at the tunnel exit used during shift change and 260 mR/hr at the edge of the pool during the changing of neutron radiography specimens. While the dose rate is greater for the radiography case, additional precautions are proposed which are not in effect during shift change. These are locking out reactor lift power, valving out the reactor lift pump, and operability of a local radiation alarm. Adequate compensation is thus obtained for not involving paragraph 4.12.

/s/

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