

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

November 7, 1960

Honorable John A. McCone
Chairman
U. S. Atomic Energy Commission
Washington 25, D. C.

Subject: REPORT ON FORT GREELY (SM-1A) REACTOR FACILITY

Dear Mr. McCone:

At its twenty-ninth meeting, November 3-5, 1960, the Advisory Committee on Reactor Safeguards reviewed the proposal to operate the SM-1A reactor facility at Fort Greely, Alaska. This reactor will be operated at a maximum power of 20 MW thermal to supply power and heat to Fort Greely. In reviewing this reactor, the Committee had the information contained in the references listed below, a report from the AEC staff, and discussion at the Committee meeting with members of the AEC staff, Army Reactors Branch, Corps of Engineers and their contractors.

The design of the reactor follows closely that of the SM-1 pressurized water reactor at Fort Belvoir. The facility differs primarily in that it provides space heating through a heat exchanger. It is suggested that this space heating system and the areas heated be carefully monitored and maintained to insure that there is no build-up of radioactivity. Considerable experience is available from the operation of the Fort Belvoir reactor, as well as from other pressurized water reactors. The population density is quite low except for the civilian and military personnel at the post. It is standard practice for such military posts to have effective evacuation plans.

The Committee notes the initial very low leak rate at welds, joints, and penetrations, but suggests periodic tests of the over-all leakage rate of the container. The Committee suggests that the instrumentation be reviewed and checked out in a suitable manner including operational testing.

Honorable John A. McCone

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With the above provisions, it is the opinion of the ACRS that this pressurized water reactor may be operated at the power level proposed without undue risk to the health and safety of the public.

Sincerely yours,

/s/ Leslie Silverman

Leslie Silverman
Chairman

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

References:

APAE No. 13, Supplement 2 - Hazards Summary Report for SM-1A dated July 1, 1960

APAE No. 13, Supplement 2, Rev. 1 - Hazards Summary Report for SM-1A dated October 7, 1960