

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

November 16, 1959

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

Subject: HEAT TRANSFER REACTOR EXPERIMENT-3A (HTRE-3A)

Dear Mr. McCone:

At its twenty-first meeting, November 12-14, 1959, the Advisory Committee on Reactor Safeguards reviewed the proposal for operation of the HTRE-3A at the National Reactor Testing Station, Idaho Falls, Idaho. Present at this meeting were representatives of the applicant, the Division of Licensing and Regulation, the Division of Reactor Development, and the Idaho Operations Office.

The Committee concluded that at the design power level, with the proposed meteorological restrictions, the experiment should proceed only if a cooling air cleaning system is provided which removes the halogens and bone seekers efficiently.

In view of the necessity of driving the components of this experiment close to their ultimate limits, a meltdown of a fair fraction of the reactor should be considered an operational hazard and not an unlikely accident. An analysis of the possible course of such a meltdown, of its consequence, and of possible corrective measures has been promised by the applicant for review in the near future. The Committee will review this information prior to submitting additional advice on this experiment.

Sincerely yours,

/s/

C. Rogers McCullough  
Chairman

cc: A.R.Luedecke, GM  
H.L.Price, DL&R

References

- 1) XDC 59-9-81 - Preliminary HTRE-3A Hazards Report, August 28, 1959.
- 2) Division of Licensing and Regulation Report to the ACRS on the Preliminary HTRE-3A Hazards Report, dated October 28, 1959.
- 3) U. S. Weather Bureau Comments on XDC 58-9-81, "Preliminary HTRE-3A Hazards Report," dated November 3, 1959.
- 4) Comments of the Office of Health and Safety on HTRE-3A Hazards Report XDC 59-9-81", October 27, 1959.