

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

December 14, 1959

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

Subject: CAROLINAS VIRGINIA TUBE REACTOR (CVTR)

Dear Mr. McCone:

At its twenty-second meeting on December 10-11, 1959, the Advisory Committee on Reactor Safeguards considered the Carolinas Virginia Tube Reactor (CVTR) for a construction permit. The Committee had the reports referred to below for review prior to meeting with representatives of the Carolinas Virginia Nuclear Power Associates.

Amendment No. 4 to the Preliminary Hazards Summary Report, as well as the oral presentation, were directed toward supplying additional information on points raised by the Committee in its letter of September 14, 1959, particularly: a) the suitability of Zircaloy for pressure tubes, and b) determination of values of nuclear, thermal, and hydrodynamic design parameters.

The Committee notes that complete evaluation of the effect on safety of certain design details of the CVTR is not possible at this stage, but depends on the outcome of the various development and testing programs described by the applicant. The question of Zircaloy embrittlement under irradiation, and its corrosion characteristics, for example, will be finally evaluated at a later stage, when studies now under way have been completed.

The Committee concludes that a reactor of this general type with containment as proposed by the Associates for the Parr location may be constructed with reasonable assurance that it can be operated at the site selected without undue risk to the health and safety of the public.

Sincerely yours,

/s/

C. Rogers McCullough
Chairman

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

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References

- 1) CVNA 27 - Preliminary Hazards Summary Report, Volume I,
July 15, 1959
- 2) CVNA 27 - Preliminary Hazards Summary Report, Volume II,
July 15, 1959
- 3) CVNA 27 - Preliminary Hazards Summary Report, Volume III,
July 15, 1959.
- 4) Amendment No. 4 to CVNPA License Application, Oct. 20, 1959.
- 5) Division of Licensing and Regulation report to the ACRS on
the Carolinas Virginia Tube Reactor, November 6, 1959.