

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
United States Atomic Energy Commission
Washington 25, D. C.

September 14, 1959

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

Subject: NORTHERN STATES POWER COMPANY - PATHFINDER ATOMIC POWER PLANT

Dear Mr. McCone:

The Pathfinder Reactor proposal was described to the Advisory Committee on Reactor Safeguards by the applicant for a license, the Northern States Power Company and his contractor, Allis-Chalmers Manufacturing Company, on August 14, 1959, at its eighteenth meeting. Subsequently discussions were held among the applicant, his contractor, members of the ACRS Subcommittee and the Hazards Evaluation Branch.

At its nineteenth meeting on September 10-12, 1959, the Advisory Committee on Reactor Safeguards, upon request of the Director of the Division of Licensing and Regulation, gave further consideration to the Pathfinder proposal and held a discussion with representatives of the Division of Licensing and Regulation.

The Advisory Committee on Reactor Safeguards has concluded that the proposed site near Sioux Falls, South Dakota, is a suitable location for a power reactor of this rating. However, there are a number of special design features in the proposal on which the applicant is conducting further theoretical analysis and for which a significant research and development effort is planned. These include an in-core nuclear superheater, aluminum alloy fuel elements and a circulation control system.

The applicant has not yet proposed alternate solutions using presently known technology which may be substituted in case his research and development program does not confirm his expectations. The Committee therefore cannot now conclude that the proposed facility can be constructed and operated at this site without undue hazard to the health and safety of the public.

Sincerely yours,

C. Rogers McCullough
Chairman

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

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References

- 1) ACNP-5905 - Pathfinder Atomic Power Plant Safeguards Report, March 10, 1959.
- 2) Supplement No. 1 to the Safeguards Report (ACNP-5905), June 26, 1959.
- 3) Division of Licensing and Regulation report to the ACRS, April 28, 1959.
- 4) Division of Licensing and Regulation report to the ACRS, August 11, 1959.
- 5) U. S. Weather Bureau Comments on ACNP-5905 "Supplement No. 1 to Pathfinder Atomic Power Plant Safeguards Report, dated June 26, 1959," August 3, 1959