

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

November 5, 1960

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

Subject: REPORT ON NORTHERN STATES POWER COMPANY - (PATHFINDER)

Dear Mr. McCone:

At its twenty-ninth meeting November 3-5, 1960, the Advisory Committee on Reactor Safeguards considered the hazards associated with the fuel elements of the Pathfinder reactor.

The Committee believes that the proposed substitution of Zircaloy II for aluminum in the fuel elements of the boiling region of the core constitutes an acceptable change in the design of these elements.

The Committee notes that there is no experience with the superheater fuel elements under the proposed operating conditions. Although we doubt that this feature of the reactor poses an undue hazard, this uncertainty should be resolved by adequate prior testing of the fuel elements. The Committee believes that operation of the superheater elements can be carried out without undue hazard to the public if increases in power level are made stepwise and are supplemented by a concurrent fuel element testing program.

The Committee urges that the significant problems of the superheater design be resolved by the results of the Division of Reactor Development program on the superheater concept, (such as BORAX V and loop tests) before a high power load is placed on the superheater of this reactor.

Sincerely yours,

Sgd/ LESLIE SILVERMAN

Leslie Silverman
Chairman

Reference:

Supplement No. 4 to Preliminary Safeguards Report, Pathfinder Atomic Power Plant dated August 15, 1960

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