

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

May 20, 1965

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C.

Subject: REPORT ON NORTHERN STATES POWER COMPANY -
PATHFINDER ATOMIC POWER PLANT

Dear Dr. Seaborg:

At its sixty-third meeting in Washington, D. C. on May 13-15, 1965, the Advisory Committee on Reactor Safeguards considered the application of Northern States Power Company to operate the Pathfinder Atomic Power Plant up to the design power, 190 MW(t) with full superheat. Previous discussions were held at the forty-fifth meeting in December 1962, the forty-eighth meeting in July 1963, and the fifty-first meeting in November 1963. Subcommittee meetings were held in October 1962, June 1963, November 1963, and May 1965. At the present review the Committee had the benefit of the references listed, and discussions with representatives of the Northern States Power Company, Allis-Chalmers Manufacturing Company, and the AEC Regulatory Staff.

The Committee believes that adequate consideration has now been given to the following: nuclear superheater corrosion, containment ventilation system isolation valves, containment spray system, remote control of emergency make-up water valves, control rod embrittlement, recirculation pump cavitation, main steam line isolation valving, the location of the readout of in-core monitors, containment leak testing, and shielding of the control room. Implementation of these considerations is nearly complete.

The Committee believes that discharge of the reactor pressure relief valves into the condenser or through a rupture disc into the containment building is acceptable.

The Committee recognizes the inclusion of experienced and technically qualified nuclear engineers on the independent safety committee and in the operating organization.

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The Committee is pleased to note that a sound criterion for safety design of instrumentation and controls has been adopted and has been implemented rigorously.

The applicant reported orally on some preliminary studies of the effects of a control rod ejection accident; the consequences appear to be acceptable if rod worths are appropriately limited. It is assumed that such limits will be defined during discussions between the applicant and the Regulatory Staff.

In conclusion, the Committee believes that, with the implementation of the above mentioned considerations, the Pathfinder Plant may be operated at its designed power of 190 MW(t) without undue risk to the health and safety of the public.

Mr. Harold Etherington did not participate in the deliberations on this project.

Sincerely yours,

/s/

W. D. Manly
Chairman

References:

1. Amendment No. 17, dated August 14, 1963, with attachments.
2. Amendment No. 18, dated August 28, 1963, with attachment.
3. Amendment No. 20, dated October 24, 1963, with attachment.
4. Amendment No. 21, dated October 29, 1963, with attachment.
5. Amendment No. 27, dated February 12, 1965, with attachments.
6. Amendment No. 28, Attachment 1, dated March 5, 1965.
7. Amendment No. 28, Attachment 2, dated March 5, 1965.
8. Amendment No. 29, Attachment 1, dated April 28, 1965.
9. Amendment No. 29, Attachment 2, dated April 28, 1965.
10. Amendment No. 29, Attachment 3, dated April 28, 1965.