



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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IN REPLY REFER TO:

Docket No. 50-130

JUL 24 1964

Northern States Power Company
15 South Fifth Street
Minneapolis 2, Minnesota

Attention: Mr. Hibbert Hill
Vice President - Engineering

Gentlemen:

Transmitted herewith is Amendment No. 1 to Provisional Operating License No. DPR-11. The amendment, in accordance with the application dated July 13, 1964, authorizes receipt, possession and use of 224 grams of plutonium encapsulated as two 1-curie and two 6-curie plutonium-beryllium neutron sources.

Also enclosed is a copy of a Notice of Issuance of Facility License Amendment which has been submitted to the Office of the Federal Register for publication, and a copy of the related Hazards Analysis.

In order to enable you to operate the Pathfinder reactor with two 6-curie plutonium-beryllium sources, Change No. 2 to the Technical Specifications of Provisional Operating License No. DPR-11 is hereby authorized.

On the basis of the information submitted in support thereof, we have concluded that Change No. 2 does not present significant hazards considerations not described or implicit in the hazards summary report, and that there is reasonable assurance that the health and safety of the public will not be endangered.

In view of the foregoing, Section 5.5.1, Section 5.7.1(a), the third paragraph of Section 7.4.1 and the second paragraph of Section 7.4.2 of the Technical Specifications are hereby changed to read as follows:

5.5.1 Initial Start-up Source

During initial fuel loading and low-pressure testing, not more than two 6-curie plutonium-beryllium neutron sources shall be used. These sources shall be positioned in superheater process tubes. At all times

*Superseded
by Change No. 19
Change No. 2/Amdt. 1
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during the use of these sources, the maximum thermal flux shall be limited to 5×10^{10} nv at the position of the sources.

5.7.1(a) Refueling

Partial core tests may be run, but the reactor power shall be limited to 1.0 Mwt, exclusive of core decay heat. When using the plutonium-beryllium sources, the power shall be limited as described in 5.5.1.

7.4.1 Basic Test Conditions

Not more than two 6-curie Pu-Be neutron sources shall be provided to yield meaningful readings on neutron sensitive chambers. The neutron population shall be monitored during the loading.

7.4.2 Boiler Slab Core Loading and Criticality

With the core drained, the boiler boxes and control rods shall be loaded into the vessel. Nuclear instrumentation for information and protection shall be operable in accordance with 7.4.1. Not more than two 6-curie Pu-Be neutron sources shall be located in the superheater process tubes. The boiler fuel elements shall be loaded into the dry core to form a slab array. The neutron population shall be monitored during the loading.

Sincerely yours,

Original Signed By
R.L. Doan

R. L. Doan, Director
Division of Reactor Licensing

Enclosures: (3)

1. Federal Register Notice
2. Amendment No. 1 to License DPR-11
3. AEC Hazards Analysis