

Docket No. 50-263

AUG 20 1974

Northern States Power Company  
ATTN: Mr. L. O. Mayer  
Director of Nuclear  
Support Services  
414 Nicollet Mall  
Minneapolis, Minnesota 55401

Gentlemen:

The Commission has issued the enclosed Amendment No. 6 to Provisional Operating License No. DPR-22. This amendment authorizes you to receive, possess, and use up to 250 millicuries of krypton 85 for calibration purposes and is in response to your application dated July 8, 1974.

The Safety Evaluation and a copy of the Federal Register Notice relating to this action also are enclosed.

Sincerely,

Original signed by:  
Karl R. Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Enclosures:

1. Amendment No. 6
2. Safety Evaluation
3. Federal Register Notice

bcc: H. J. McAlduff, ORO  
J. R. Buchanan, ORNL  
T. B. Abernathy, DTIE

cc w/encls:

See page 2

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DATE ▶	8/19/74	8/19/74	8/19/74	8/19/74	8/20/74	

Northern States Power Company

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Aug 20 1974

cc w/encls:

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1222 S. E. 4th Street  
Minneapolis, Minnesota 55414

cc w/encls and copy of NSP application  
dtd. 7/8/74:

Warren R. Lawson, M. D.  
Secretary & Executive Officer  
State Department of Health  
University Campus  
Minneapolis, Minnesota 55440

Mr. Gary Williams  
Federal Activities Branch  
Environmental Protection Agency  
1 N. Wacker Drive, Room 822  
Chicago, Illinois 60606

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NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 6  
License No. DPR-22

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by the Northern States Power Company (the licensee) dated July 8, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
2. Accordingly, Provisional Operating License No. DPR-22 is hereby amended to revise Section 2.C thereof to add krypton 85 and the section is restated in its entirety to read as follows:

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"2.C. Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material," to receive, possess and use in connection with the operation of the facility:

- (1) antimony 122 and 124, ten sealed sources, not to exceed 5,350 curies per source;
- (2) americium 241, one sealed source, not to exceed 7 curies;
- (3) cobalt 60, four sealed sources, two not to exceed 350 microcuries per source, one not to exceed 500 millicuries, and one not to exceed 12.5 millicuries;
- (4) krypton 85, 250 millicuries (without restriction as to chemical or physical form);
- (5) cobalt 60, 5.5 millicuries (without restriction as to chemical or physical form);
- (6) cesium 137, three millicuries (without restriction as to chemical or physical form);
- (7) americium 241 and strontium 90, each not to exceed one millicurie per nuclide (without restriction as to chemical or physical form), and
- (8) any byproduct material with atomic numbers 3 through 83, inclusive, not to exceed 100 microcuries per source (in any chemical or physical form)."

3. This license amendment is effective as of the date of its issuance.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by:  
Karl R. Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Date of Issuance: AUG 20 1974

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SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING

SUPPORTING AMENDMENT NO. 6 TO LICENSE DPR-22

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

Introduction

By letter dated July 8, 1974, Northern States Power Company requested a change to Provisional Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The proposed change would increase the licensed inventory of byproduct material by an amount of 250 millicuries of krypton-85.

Discussion

The change proposed by the licensee would allow the use of krypton-85 to verify industry data used in the calibration of the reactor building vent monitor. The Technical Specifications appended to Provisional Operating License No. DPR-22 require calibration of the reactor building vent monitor every three months.

Our review of this proposed change to Section 2.C of Provisional Operating License No. DPR-22 considered the consequences of accidental release of the total 250 millicuries of krypton-85. Our analysis of an accidental release at ground level of the total krypton-85 inventory assuming 2 hour-5 percentile accident meteorological conditions ( $X/Q = 1.5 \times 10^{-3} \text{ sec/m}^3$ ) at the nearest site boundary (465 m) resulted in a whole body dose of less than  $2.5 \times 10^{-2} \text{ mRem}$  (beta plus gamma radiation). Even if such an accidental release occurred every time calibration of the reactor building vent monitor is required (four times per year), the annual whole body dose would be less than  $1 \times 10^{-1} \text{ mRem}$ . We understand that the smallest amount of krypton-85 required for a meaningful calibration will be used and an amount of krypton-85 less than 250 millicuries will be used during any calibration of the reactor building vent monitor. Such whole body doses are less than 0.02 percent of allowable annual doses for unrestricted areas given in 10 CFR Part 20.

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Conclusion

We have concluded, based on the analysis discussed above, that because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the action does not involve a significant hazards consideration. We also conclude that there is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

*/s/ James J. Shea*

James J. Shea  
Operating Reactors Branch #2  
Directorate of Licensing

*/s/ Fredric D. Anderson* *for*

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Directorate of Licensing

Date:

AUG 14 1974

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UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-263

NORTHERN STATES POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL  
OPERATING LICENSE

Notice is hereby given that the U. S. Atomic Energy Commission (the Commission) has issued Amendment No. 6 to Provisional Operating License No. DPR-22 issued to the Northern States Power Company (the licensee) which revised the quantity of byproduct material the licensee may use in connection with operation of the Monticello Nuclear Generating Plant, located in Wright County, Minnesota. The amendment is effective as of its date of issuance.

The amendment authorizes the licensee to possess and use 250 millicuries of krypton 85 for calibration of the continuous air monitor at the reactor building vent to verify industry data.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

For further details with respect to this action, see (1) the application for amendment dated July 8, 1974, (2) Amendment No. 6 to License No. DPR-22, and (3) the Commission's concurrently issued Safety

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Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Environmental Library of Minnesota, 1222 S. E. 4th Street, Minneapolis, Minnesota 55414. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Atomic Energy Commission, Washington, D. C. 20545, Attention, Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this 20th day of August, 1974.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by  
Dennis L. Ziemann  
Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Directorate of Licensing

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