MAY 29 1975

Docket No. 50-306

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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. 1 to Facility License No. DPR-60 for Unit 2 of the Prairie Island Nuclear Generating Plant. This amendment authorizes you to receive, possess, and use up to one curie of sodium 24 in connection with operation of the facility and is in response to your application dated March 18, 1975.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Original signed by
Dennis L. Ziemann

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

Enclosures:
1. Amendment No. 1 to License No. DPR-60
2. Safety Evaluation
3. Federal Register Notice

cc w/enclosures: see next page

OFFICE	RL:ORB #2	RL:ORB #2	OELD	RL:ORB #2	RL:AD/ORs	
SURNAME	BCBuckley:aw	RMDiggs	Lewis	DLZiemann	KRGoller	
DATE	4/15/75	4/14/75	5/27/75	5/28/75	5/29/75	

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc w/enclosures:
Gerald Charnoff, Esquire
Shaw, Pittman, Potts & Trowbridge
910 - 17th Street, N. W.
Washington, D. C. 20006

Steve J. Gadler, P. E.
2120 Carter Avenue
St. Paul, Minnesota 55108

Sandra S. Gardebring, Esquire
Counsel for Minnesota Pollution
Control Agency
1935 W. County Road B2
Roseville, Minnesota 55113

The Environmental Conservation
Library
Minneapolis Public Library
300 Nicollet Mall
Minneapolis, Minnesota 55401

Mr. Bernard Cranum
Area Director
Bureau of Indian Affairs
U. S. Department of Interior
831 Second Avenue, South
Minneapolis, Minnesota 55402

Mr. John E. Davidson
Goodhue County Board of Commissioners
321 West Third Street
Red Wing, Minnesota 55066

cc w/enclosures and cy of NSPCo
filing dtd. 3/18/75:
Mr. Richard D. Cudahy, Chairman
Public Service Commission
of Wisconsin
Hill Farms State Office Building
Madison, Wisconsin 53702

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

Mr. Gary Williams
Federal Activities Branch
Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 1
License No. DPR-60

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Northern States Power Company (the licensee) dated March 18, 1975, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), 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; and

   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.

2. Accordingly, Facility Operating License No. DPR-60 is hereby amended to revise item (4) of Section 2.B thereof to read as follows:

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SURNAME ➤						
DATE ➤						

"(4) Pursuant to the Act and 10 CFR Part 30, to receive, possess and use at any time 100 millicuries each of any byproduct material without restriction to chemical or physical form, for sample analysis or instrument calibration, and up to one curie of sodium 24 in liquid form to be used as a tracer source;"

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
Karl R. Goller

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

Date of Issuance: MAY 29 1975

OFFICE ➤						
SURNAME ➤						
DATE ➤						

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 1 TO LICENSE NO. DPR-60

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT 2

DOCKET NO. 50-306

INTRODUCTION

By letter dated March 18, 1975, Northern States Power Company requested an amendment to Facility Operating License No. DPR-60 for the Prairie Island Nuclear Generating Plant Unit 2. The proposed change would permit possession and use of one curie of byproduct material sodium 24.

DISCUSSION

The license amendment proposed by the licensee is required to facilitate the use of sodium 24 to measure the moisture carryover from the steam generators as a part of the Prairie Island Nuclear Generating Plant Unit 2 startup test program. Previously, for Unit 1, a cross correlation between phosphate carryover in the main steam was used to measure steam quality. However, a changeover from phosphate control to all volatile treatment (AVT) of the secondary water systems for both Units 1 and 2 prohibits the use of the latter steam quality measurement technique.

In our evaluation of this proposed amendment we analyzed the consequence of releasing the total one curie of sodium 24, which is the most severe accident that could result from the proposed operation. Our analysis of this accident assuming ground level release, and 5 percentile accident meteorological conditions ($X/Q = 9.8 \times 10^{-4}$ sec/m^3) at the site boundary (2340 feet) resulted in a whole body dose of 15 mRem (beta plus gamma radiation). We have concluded that such a low dose from this postulated accident represents an insignificant risk to the health and safety of the public.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the change 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 change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Date: MAY 29 1975

OFFICE ➤						
SURNAME ➤						
DATE ➤						

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-306

NORTHERN STATES POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 1 to Facility Operating License No. DPR-60, issued to the Northern States Power Company (the licensee), which revised the license for operation of the Prairie Island Nuclear Generating Plant Unit 2 (the facility) located in Goodhue County, Minnesota. The amendment is effective as of its date of issuance.

The amendment authorizes the licensee to receive, possess and use additional byproduct material in the form of sodium 24 for the measurement of moisture carryover from the steam generators as part of the facility's startup test program, in accordance with the licensee's application dated March 18, 1975.

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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

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DATE ➤						

For further details with respect to this action, see (1) the application for amendment dated March 18, 1975, (2) Amendment No. 1 to License No. DPR-60, and (3) the Commission's concurrently issued related Safety 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 Conservation Library, Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Licensing.

Dated at Bethesda, Maryland, this 29th day of May, 1975.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Dennis L. Ziemann

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

OFFICE ➔						
SURNAME ➔						
DATE ➔						