

August 24, 1993

Docket Nos. 50-282
and 50-306

Mr. Roger O. Anderson, Director
Licensing and Management Issues
Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

Dear Mr. Anderson:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
CHANGES TO TECHNICAL SPECIFICATIONS TO INCREASE THE MAXIMUM FUEL
ENRICHMENT TO 5.0 WEIGHT PERCENT, PRAIRIE ISLAND NUCLEAR GENERATING
PLANT (TAC NOS. M86727 AND M86728)

Enclosed is a copy of an "Environmental Assessment and Finding of No
Significant Impact" for the Prairie Island Nuclear Generating Plant, Units 1
and 2. The assessment relates to the application from Northern States Power
dated June 11, 1993, as revised June 30, 1993, which proposed changes to the
technical specifications to increase the maximum fuel enrichment to 5.0 weight
percent Uranium 235.

This assessment has been forwarded to the Office of the Federal Register for
publication.

Sincerely,

ORIGINAL SIGNED BY

Marsha Gamberoni, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment

cc w/enclosure:
See next page

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Mr. Roger O. Anderson, Director
Northern States Power Company

Prairie Island Nuclear Generating
Plant

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UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-282 AND 50-306

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-42 and DPR-60, issued to Northern States Power Company, (the licensee) for the Prairie Island Nuclear Generating Plant, Units 1 and 2 located in Goodhue County, Minnesota.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

By letter dated June 11, 1993, as revised June 30, 1993, the licensee proposed to change the technical specifications (TSs) to allow an increase in fuel enrichment (Uranium 235) to 5.0 weight percent. Prairie Island TSs currently limit fuel in the spent fuel pool and new fuel storage racks to a maximum enrichment of 4.25 weight percent U-235. In order to support longer fuel cycles at Prairie Island, it would be necessary to increase fuel enrichment beyond the 4.25 weight percent limit and to revise the TS enrichment limits. The licensee has requested revisions to the Prairie Island TSs to allow the storage of 5.0 weight percent U-235 fuel in the new fuel vault and the spent fuel pool.

The Need for Proposed Action:

The licensee intends, in the future, to use the more highly enriched fuel to support longer fuel cycles. Currently, TS 5.6.4 limits the storage and use of fuel to an enrichment of 4.25 weight percent. Before the licensee extends

plant operating cycles, it plans on receiving shipments of 5.0 weight percent fuel in September 1993. Thus, the change to the TSs was requested.

Environmental Impact of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to the TSs and concludes that storage and use of fuel enriched with U-235 up to 5.0 weight percent at Prairie Island, Units 1 and 2, is acceptable. The safety considerations associated with higher enrichments have been evaluated by the NRC staff and the staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse effect on the probability of any accident. There will be no change to authorized power levels. The change to the fuel burnup is bounded by NRC staff generic review (discussed below). As a result, there is no significant increase in individual or cumulative radiation exposure.

The environmental impacts of transportation resulting from the use of higher enrichment and extended irradiation are discussed in the staff assessment entitled "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation." This assessment was published in the FEDERAL REGISTER on August 11, 1988 (53 FR 30355) as corrected on August 24, 1988 (53 FR 32322) in connection with the Shearon Harris Nuclear Power Plant, Unit 1: Environmental Assessment and Finding of No Significant Impact. As indicated therein, the environmental cost contribution of an increase in fuel enrichment of up to 5 weight percent U-235 and irradiation limits of up to 60,000 MWD/MTU are either unchanged, or may in fact be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c). These findings are applicable to these proposed amendments for Prairie Island, Units 1 and 2. Accordingly, the Commission concludes that

this proposed action would result in no significant radiological environmental impact.

With regard to potential non-radiological impacts, the proposed changes involve systems located within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed amendments.

The Notice of Consideration of Issuance of Amendments To Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on July 21, 1993 (58 FR 39054). No request for hearing or petition for leave to intervene was filed following this notice.

Alternatives to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternative with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendments. The staff considered denial of the proposed action; however, this would not reduce environmental impacts of plant operation and would result in reduced operational flexibility. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Prairie Island, Units 1 and 2, dated May 1973.

Agencies and Persons Consulted:

The NRC staff reviewed the licensee's request. The staff consulted with the State of Minnesota regarding the environmental impact of the proposed action. The State had no comments.

FINDING OF NO SIGNIFICANT IMPACT:

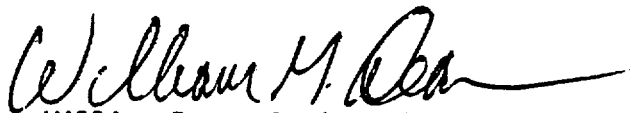
The Commission has determined not to prepare an environmental impact statement for the proposed license amendments.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for license amendments dated June 11, 1993 as revised June 30, 1993. Copies are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, D.C. 20555, and at the Local Public Document Room located at the Minnesota Public Library, Technology and Science Department, 300 Nicollet Mall, Minneapolis, Minnesota 55401.

Dated at Rockville, Maryland, this 24th day of August 1993.

FOR THE NUCLEAR REGULATORY COMMISSION



William Dean, Acting Director
Project Directorate III-3
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation