

August 31, 1988

Dockets Nos. 50-282
and 50-306

Mr. D. M. Musolf, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Musolf:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT (TACS
68654 AND 68655)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to your application dated July 5, 1988, for amendments to Facility Operating Licenses Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant, Units Nos. 1 and 2.

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

Sincerely,

Original Signature

Dominic C. DiIanni, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosure:
Environmental Assessment

cc: w/enclosure
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
August 31, 1988

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and 50-306

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Sincerely,

A handwritten signature in cursive script that reads "Dominic C. DiIanni".

Dominic C. DiIanni, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosure:
Environmental Assessment

cc: w/enclosure
See next page

Mr. D. M. Musolf
Northern States Power Company

Prairie Island Nuclear Generating
Plant

cc:
Gerald Charnoff, Esq.
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N.W.
Washington, DC 20037

Dr. J. W. Ferman
Minnesota Pollution Control Agency
520 LaFayette Road
St. Paul, MN 55155

Mr. E. L. Watzl, Plant Manager
Prairie Island Nuclear Generating Plant
Northern States Power Company
Route 2
Welch, Minnesota 55089

Jocelyn F. Olson, Esq.
Assistant Attorney General
Environmental Protection Division
Suite 200
520 Lafayette Road
St. Paul, Minnesota 55155

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
1719 Wakonade Drive East
Welch, Minnesota 55089

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
Office of Executive Director for
Operations
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. William Miller, Auditor
Goodhue County Courthouse
Red Wing, Minnesota 55066

UNITED STATES NUCLEAR REGULATORY COMMISSION
NORTHERN STATES POWER COMPANY
DOCKETS 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 Licenses Nos. DPR-42 and DPR-60, issued to Northern States Power Company (the licensee), for operation of the Prairie Island Nuclear Generating Plant, Units Nos. 1 and 2, located in Goodhue County, Minnesota.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed amendments would revise the Technical Specifications (TSs) to change the values of the nuclear hot channel factor (F_Q) and the nuclear enthalpy rise in the hot channel factor ($F_{\Delta H}$) as they relate to the power distribution limits that are used in the departure from nucleate boiling (DNB) calculations for analyzing various potential accidents. Specifically, F_Q and $F_{\Delta H}$ will have assigned values of 2.50 and 1.70 respectively, instead of the existing condition where the assigned values are based on a function of each other. The proposed action is in accordance with the licensee's application for amendment dated July 5, 1988.

The Need for the Proposed Action:

The proposed change to the TSs is based on the new evaluation model. This change is necessary to (1) revise the surface heat transfer coefficient

used in the analysis of the rod ejection accident; (2) increase the reliability factor (RF) applied to Doppler coefficient; and (3) ensure conservatism in all cases related to the revised SCRAM reactivity insertion curve and the updated rod bow penalty factor for the minimum departure from nucleate boiling ratio (MDNBR).

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to the TSs. The proposed revision would change the F_Q and $F_{\Delta H}$ factors to specific values of 2.50 and 1.70 respectively, instead of determining these factors based on a functional curve related to both values. The evaluation demonstrates that operation of the plant does not exceed the acceptable thermal limits and is bounded by previously approved safety analyses. In addition, the impacts of operation in the proposed manner are within those impacts evaluated in the Final Environmental Statements related to operation of the facility. Therefore, the proposed change does not increase the probability or consequences of any accident, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential nonradiological impacts, the proposed change to the TSs involves systems located within the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on July 29, 1988 (53 FR 28737). No request for hearing or petition for leave to intervene was filed following this notice.

Alternative to the Proposed Action:

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

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statements related to the Prairie Island Nuclear Generating Plant dated May 1973.

Agencies and Persons Consulted:

The Commission's staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

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

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 amendment dated July 5, 1988, which is available for public inspection at the

Commission's Public Document Room, 1717 H Street, NW., Washington, DC, and
the Technology and Science Department, Minneapolis Public Library, 300
Nicollet Mall, Minneapolis, Minnesota 55401.

Dated at Rockville, Maryland, this 31st day of August.

FOR THE NUCLEAR REGULATORY COMMISSION



Martin J. Virgilio, Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects