

Docket File

September 9, 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: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS NOS. 1 AND 2,
ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT-
EXEMPTION FROM REQUIREMENTS OF APPENDIX K TO 10 CFR PART 50
(TACS NOS. 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 28, 1988, for exemption from the requirements of
Appendix K to 10 CFR Part 50 for the Prairie Island Nuclear Generating Plant,
Units Nos. 1 and 2.

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

Sincerely,

/s/

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



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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

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UNITED STATES NUCLEAR REGULATORY COMMISSION
NORTHERN STATES POWER COMPANY
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS NOS. 1 AND 2
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 an exemption from the requirements of Appendix K to 10 CFR Part 50 to Northern States Power Company (the licensee) for the Prairie Island Nuclear Generating Plant, Units Nos. 1 and 2, located in Goodhue County, Minnesota.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The exemption would grant relief from the requirements of 10 CFR Part 50, Appendix K, Sections I.D.3 and I.D.5, as these requirements relate to the calculational method for determining the core exit flow without establishing the carryover fraction and the heat transfer analysis during the refill and reflood phase of a loss of coolant accident (LOCA). These calculations are part of a thermal/hydraulic analysis that demonstrates the existing emergency core cooling system (ECCS) will provide adequate protection of the reactor fuel during a LOCA.

The exemption is responsive to the licensee's application for exemption dated July 28, 1988.

The Need for the Proposed Action:

The proposed exemption is needed because the features described in the licensee's request indicate that the method assumed for injecting cooling

water into the reactor in thermal/hydraulic analysis is different than the actual method used at the plant. The evaluation model for analyzing potential accidents assumed cooling water would enter the reactor via the lower plenum, while the pipe configuration of the plant injects cooling water in the upper plenum of the reactor.

Environmental Impacts of the Proposed Action:

The proposed exemption deals with the calculational method in the analysis of a potential accident. The exemption does not affect in any way the plant operating characteristics or procedures, components or systems. Consequently, the exemption does not increase the probability of any accident, and radiological releases will not be greater than previously determined nor does the proposed exemption otherwise affect radiological plant effluents. With regard to potential nonradiological impacts, the proposed exemption will in no way affect environs located outside the restricted area as defined in 10 CFR Part 20. It does not affect in any way the nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or nonradiological impacts associated with the proposed exemption.

Alternative to the Proposed Action:

The Commission has concluded that there is no measurable impact associated with the proposed exemption; any alternatives to the exemption will have either no environmental impact or greater environmental impact.

Alternative Use of Resources:

This action involves no use of resources not previously considered in the Final Environmental Statements for the Prairie Island Nuclear Generating Plant, Units Nos. 1 and 2.

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 exemption.

Based upon the foregoing environmental assessment, the Commission concludes 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 the exemption dated July 28, 1988, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, DC, and at the Minneapolis Public Library, Technology and Science Department, 300 Nicollet Mall, Minneapolis, Minnesota 55401.

Dated at Rockville, Maryland, this 9th day of September 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Dominic C. DiIanni

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