



Northern States Power Company

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November 11, 1981

Director of Nuclear Reactor Regulation
U S Nuclear Regulatory Commission
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket No. 50-282 License No. DPR-42
50-306 DPR-60



Natural Circulation Cooldown

We have reviewed your May 5, 1981 letter concerning Natural Circulation Cooldown, Generic Letter No 81-21. Westinghouse has performed an analysis of natural circulation cooldowns and recommended procedural changes reported to you in their April 20, 1981 Owner's Group letter OG-57. These procedural changes have been incorporated into the plant procedures. The maximum cooldown rate of 25 ° F/hour and soak period at 350 F (if necessary) have been added to the procedure.

The current Technical Specifications require a minimum of 100,000 gallons of water in the condensate storage tanks. The cooldown of the primary system from 547°F to 350°F will require approximately 89,000 gallons of water. If the CRDM booster fans are not available, the soak at 350°F would require another 51,000 gallons. Normally, more than 140,000 gallons are available to each unit. However, in the unlikely case there was less than 140,000 gallons available, the safeguards source of cooling water can supply an unlimited amount of river water.

All licensed operators will attend a lecture on the St. Lucie incident. It will include a discussion of natural circulation, a description of the incident, how the natural circulation procedure has been revised to prohibit drawing a bubble in the upper head during a natural circulation cooldown and how to respond to rapid changes in pressurizer level due to reactor vessel voiding.

We believe this answers your questions concerning this matter, please call if you have additional questions.

L. O. Mayer

L O Mayer, PE
Manager of Nuclear Support Services

LOM/TMP/bd

cc: J G Keppler PDR ADOCK 05000282
G Charnoff P PDR
NRC Resident Inspector

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UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

Docket No. 50-282
50-306

RESPONSE TO NRC REQUEST
FOR INFORMATION NATURAL CIRCULATION COOLDOWN
GENERIC LETTER 81-21

Northern States Power Company, a Minnesota corporation, by this letter dated November 11, 1981 hereby submits information in response to NRC request for information concerning Generic Letter 81-21.

This submittal contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By

L.O. Mayer
L O Mayer

Manager of Nuclear Support Services

On this 11th day of November, 81, before me a notary public in and for said County, personally appeared L O Mayer, Manager of Nuclear Support Services, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof and that to the best of his knowledge, information and belief, the statements made in it are true and that it is not interposed for delay.

Betty J. Dean

