

Docket Nos. 50-282
and 50-306 ✓

OCT 11 1977

Northern States Power Company
ATTN: Mr. L. O. Mayer, Manager
Nuclear Support Services
414 Nicollet Mall - Eighth Floor
Minneapolis, Minnesota 55401

Gentlemen:

Pursuant to the enclosed Order dated September 21, 1977, of the Commission's Atomic Safety and Licensing Board, we have issued the enclosed Amendment Nos. 23 and 17 to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2, respectively. The amendments revise the licenses to delete the condition which prohibited shipment of the old racks of the spent fuel pool.

The Order directs that all of the racks, which were referred to in Condition 2.C(3)a of the licenses, shall be decontaminated and packed intact into wooden crates for shipment offsite.

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendments. The amendments will not cause a significant impact on the environment. We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level, and will not result in any significant environmental impact different from that discussed in our appraisal issued April 18, 1977. Therefore, an additional environmental statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

The amendments do not involve significant new safety information of a type not considered by a previous Commission safety review dated April 15, 1977. They do not involve a significant increase in the probability or consequences of an accident, do not involve a significant decrease in a safety margin, and therefore do not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

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DATE ➤						

OCT 11 1977

A copy of a related Notice which is being filed with the Office of the Federal Register for publication is enclosed.

Sincerely,

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

Enclosures:

1. Order
2. Amendment No. 23 to License No. DPR-42
3. Amendment No. 17 to License No. DPR-60
4. Notice

cc w/enclosures:
See next page

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FOR PREVIOUS CONCURRENCES
SEE ATTACHED YELLOW

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SURNAME >	RMDiggs	MGrotenhuis	esp BGrimes	ESilberstein	DKDavis	KRGoller
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cc w/enclosures:

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Mr. F. P. Tierney
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Prairie Island Nuclear Generating Plant
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The Environmental Conservation Library
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Washington, D. C. 20460

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
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Chicago, Illinois 60604

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831 Second Avenue South
Minneapolis, Minnesota 55402

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

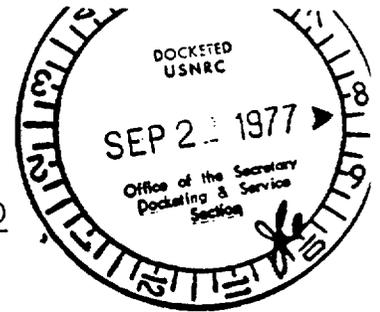
State Department of Health
ATTN: Secretary & Executive Officer
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Chairman, Public Service Commission
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Hill Farms State Office Building
Madison, Wisconsin 53702

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of)
NORTHERN STATES POWER COMPANY) Docket Nos. 50-282
) 50-306
)
(Prairie Island Nuclear Generating) (Spent Fuel Pool Modification)
Plant, Units 1 and 2)

ORDER

We earlier denied Applicant's motion for reconsideration of Condition No. 1 imposed upon license amendments issued pursuant to our Initial Decision of August 12, 1977.^{1/} There is now before us "Applicant's Request for Authority to Ship Fuel Racks Intact in Wooden Crates," dated September 15, 1977.

1/ Condition No. 1 states the following:

"The licensee shall be authorized to proceed with the fuel pool modification as requested, except for rack disposal. After the old racks have been removed and washed down measurements shall be made of the radiation levels that would be experienced by workers cutting the racks and packing the pieces in drums and by workers preparing the racks for crates and crating them. The licensee will then assess, based on these measurements, the total occupational dose that would result from each method of disposal: cutting and packing the pieces in drums for shipment off-site; and preparing intact racks for placement into crates, placing them in crates, and loading the crates for shipment off-site. This assessment shall be submitted to the NRC Regulatory Staff for its evaluation. Following its evaluation, the Staff shall recommend to this Licensing Board whether the licensee should be allowed to proceed with disposal as planned or shall be required to crate intact racks for shipment. Upon considering the Staff's recommendation, and any additional evidence presented to us at that time, the Board will issue its further decision on this matter."

Condition No. 1 was imposed because the evidence suggested that the total occupational dose associated with the spent fuel pool modification could be reduced if the Applicant were to crate intact racks for shipment off-site rather than having the racks cut and packed in drums for shipment. (Initial Decision, paragraph 58). We were not convinced that the method proposed to be used by the Applicant (cutting and packing in drums) would result in compliance with the "as low as is reasonably achievable" (ALARA) regulation at 10 CFR §20.1(c). Condition No. 1 required the Applicant to explore this question further.

With its earlier motion to reconsider, Applicant submitted an affidavit of Mr. Dale M. Vincent with an attached report which estimates the radiation exposure and monetary cost of the two alternative methods of rack disposal. The affidavit and report were not received into evidence, for reasons indicated in our Order dated September 8, 1977 (at p. 6). But those papers indicated that cutting the racks would result in about 7 man-rem more occupational exposure than leaving the racks intact.^{2/}

^{2/} Applicant estimated that the occupational dose which would result from decontaminating and packing intact racks would be about 6.46 man-rem, while cutting the racks into pieces and packing the pieces in drums would result in an exposure of about 13.5 man-rem. (Motion to Reconsider, paragraph 6) These values are not estimates of total occupational exposure, however; neither includes the additional exposure (which presumably would be the same for both methods of disposal) associated with removing the racks from the spent fuel pools and with other essential activities. In his prepared testimony (on Contention 17 at p. 2) Mr. Vincent estimated that exposure associated with these additional activities would be 4.8 man-rem and 9.6 man-rem, respectively. Taking this additional exposure into account, we find that the estimated total occupational exposure that would result from (Continued on page 3)

In our Initial Decision we found the evidence suggested that cutting the racks might result in an occupational exposure "as much as 10 man-rem" more than if the alternative method of disposal were used. (Initial Decision, paragraph 58)

During a conference telephone call on August 26, 1977, in which all parties participated, both the Intervenor and the Regulatory Staff expressly stated that they would not oppose a motion by the Applicant requesting authority to dispose of the racks by crating and shipping them intact. In their responses to Applicant's earlier motion for reconsideration, these parties reaffirmed their position with regard to this matter, and both stated, further, that they would not object to our receiving the Vincent affidavit and attached report for the limited purpose of confirming the belief that crating and shipping intact racks would result in less occupational exposure. Finally, we said in our

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disposing of intact racks would be 20.86 man-rem as compared to 27.9 man-rem if the racks are cut up before shipment. In our Initial Decision we noted that the estimated total occupational exposure (i.e., about 28 man-rem) associated with the proposed spent fuel pool modification at Prairie Island was greater than total occupation exposures experienced during other spent fuel modification jobs. (paragraph 52) In a more recent case, a licensing board authorized a license amendment for a spent fuel pool modification at Vermont Yankee, allowing the licensee to dispose of the old racks by cutting them up before packing for shipment (Vermont Yankee Nuclear Power Corporation, Vermont Yankee Nuclear Power Station, Docket No. 50-271, Initial Decision, slip op. at 12 and 24, August 30, 1977). In that case, however, the total occupational exposure was estimated by the licensee to be only 4 man-rem and by Staff to be only 10 man-rem. (Id. at 16)

September 8 Order, that we stood ready to consider a request from the Applicant for authorization to ship intact racks.

On the present motion, Applicant "requests that the Licensing Board authorize modification of Condition No. 1 to permit the shipment of any or all of the old fuel racks intact in wooden crates without the need for further action of the NRC Staff or the Licensing Board" (emphasis supplied). If the motion were to be granted in the form requested, Applicant would be able to ship the intact racks which are already crated, plus any others which it might elect to crate, and it would also have the option of later invoking the aid of the Board in compliance with Condition No. 1 should Applicant elect not to ship all of the racks intact.

Earlier we concluded that the evidence in this case suggested that the Applicant might not comply with the requirements of 10 CFR Part 20 if it were to cut the racks for shipment rather than shipping them intact, and for that reason we imposed Condition No. 1. There being no objection to our doing so, we hereby accept into evidence the Vincent affidavit and accompanying report, for the limited purpose of confirming other evidence which indicates that shipping intact racks would result in less occupational exposure than would cutting the racks before shipment.

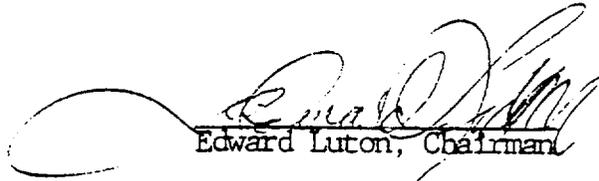
The evidence before us indicates that the ALARA requirements of 10 CFR Part 20 will be met if all of the racks are shipped intact. For that

reason, we see no point in protracting these proceedings by leaving open the option of cutting some of the racks before shipment. Accordingly, we deny so much of the present motion which asks us to modify Condition No. 1, and we grant so much of the motion as requests authorization to ship the racks intact. We hereby direct that all of the racks shall be decontaminated and packed into wooden crates for shipment off-site.

Condition No. 1 is no longer needed, and it is hereby stricken from the Initial Decision.

SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD



Edward Luton, Chairman

Dated at Bethesda, Maryland
this 21st day of September 1977.



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

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-282

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23
License No. DPR-42

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - B. 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;
 - C. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - D. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-42 is hereby amended by deleting paragraph 2.C(3)a thereof in its entirety.
3. The license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Karl R. Goller".

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

Date of Issuance: October 11, 1977



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

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 17
License No. DPR-60

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - B. 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;
 - C. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - D. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-60 is hereby amended by deleting paragraph 2.C(3)a thereof in its entirety.
3. The license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Karl R. Goller".

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

Date of Issuance: October 11, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-282 AND 50-306

NORTHERN STATES POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 23 and 17 to Facility Operating License Nos. DPR-42 and DPR-60, issued to the Northern States Power Company (the licensee), which revised the licenses for operation of Unit Nos. 1 and 2 of the Prairie Island Nuclear Generating Plant (the facilities) located in Goodhue County, Minnesota. The amendments are effective as of their date of issuance.

On August 16, 1977, the Commission issued Amendment Nos. 22 and 16 to the above-referenced licenses that permitted the licensee to modify the Prairie Island Unit Nos. 1 and 2 spent fuel storage pool (42 F.R. 42933, published August 25, 1977). This modification included replacing the old racks of the pool with new racks having a capacity for storage of a greater number of fuel assemblies. The August 16 amendments prohibited shipment of the old racks offsite, pursuant to the Commission Atomic Safety and Licensing Board's (ASLB) Initial Decision dated August 12, 1977.

The currently issued amendments authorized the licensee to crate intact and ship offsite the old racks from the spent fuel storage pool. This action is pursuant to an Order by the ASLB dated September 21, 1977.

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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration different from that considered at the time of publishing of the "Notice of Consideration of Modification to Facility Spent Fuel Storage Pool" in the Federal Register on January 10, 1977 (42 F.R. 2140).

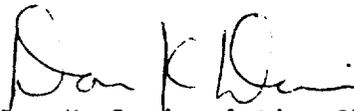
The Commission has determined that the issuance of these amendments authorizing shipment of the old racks offsite will not result in any significant environmental impact different from that previously assessed in its environmental impact appraisal issued on April 18, 1977, entitled "Discussion and Conclusions by the Office of Nuclear Reactor Regulation Relating to Environmental Considerations Associated with Modifications to the Spent Fuel Pool of the Prairie Island Nuclear Generating Station Units 1 and 2". Therefore, an additional environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of the amendments for the shipment of the old racks.

For further details with respect to this action, see (1) the ASLB Order dated September 21, 1977, (2) Amendment Nos. 23 and 17 to License Nos. DPR-42 and DPR-60, respectively, (3) the Commission's Safety Evaluation dated April 15, 1977, (4) the Commission's

Environmental Impact Appraisal dated April 18, 1977, and (5) the Initial Decision of the Atomic Safety and Licensing Board dated August 12, 1977. 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 of the Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A single copy of items (1) and (2) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 11th day of October, 1977.

FOR THE NUCLEAR REGULATORY COMMISSION



Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors