

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

Docket No. 50-263

REQUEST FOR AMENDMENT TO  
OPERATING LICENSE NO. DPR- 22  
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(License Amendment Request Dated May 30, 1975)

Northern States Power Company, a Minnesota corporation, requests authorization for an amendment to the Operating License as shown on the attachment labeled Exhibit A. Exhibit A describes the proposed amendment along with the reason for the amendment.

This request contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By

L. J. Wachter  
L J Wachter

Vice President, Power Production  
& System Operation

On this 30th day of May, 1975, before me a notary public in and for said County, personally appeared L J Wachter Vice President, Power Production and System Operation, and being first duly sworn acknowledged that he is authorized to execute this document in 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.

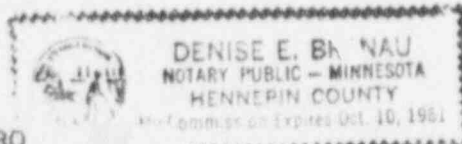


Exhibit A

Monticello Nuclear Generating Plant  
Docket No. 50-263 License No. DPR-22

License Amendment Request  
Dated May 30, 1975

Pursuant to 10 CFR 50.90, the holder of Provisional Operation License DPR-22 requests that Section 2.B of this license be amended to read as follows:

"B. Pursuant to the Act and 10 CFR Part 70, "Special Nuclear Material," to receive, possess, and use at any one time up to 3200 kilograms of uranium 235 as reactor fuel assemblies, 50 grams of uranium 235 as fission chambers, and 16 grams of plutonium as contained Pu-Be neutron sources in connection with operation of the facility."

The Monticello License presently allows the receipt, possession and use of up to 2300 kilograms of uranium 235 as reactor fuel assemblies. The only change is that the proposed wording increases that limit to 3200 kilograms.

A change in the Monticello fuel management scheme is planned to reduce gaseous radioactive effluents from the plant. This change affects the basis of the present limit on uranium 235 as reactor fuel assemblies. The initial fuel management scheme called for the replacement of highly exposed fuel by periodic reloads. At no time was the inventory of uranium expected to exceed that of the unexposed initial core. The license limit was thereby established at 2300 kg of uranium 235. Observed increases of effluent levels have been attributed to cladding perforations in the initial core fuel. In October of this year we are planning to replace all remaining initial core fuel with fuel designed and constructed similar to that which has demonstrated improved performance at Monticello and elsewhere. The premature discharge involves an unanticipated residual inventory of un-fissioned uranium 235 in the discharged fuel. The increase in the proposed limit of uranium 235 as fuel assemblies represents the impact of this residual inventory as well as the large reload batch required to replace it.

The proposed change in the allowable amount of uranium 235 as reactor fuel assemblies does not alter previous safety evaluations or raise new safety concerns. Of interest here, is the amount of uranium 235 that can be accommodated at the Monticello facility in a criticality-safe manner. Fuel storage racks in the new fuel storage vault are designed such that an infinite array of stored fuel will have a multiplication factor less than 0.90 dry and less than 0.95 flooded. Fuel storage racks in the

spent fuel storage pool are designed such that an infinite array of stored fuel at its most reactive exposure will have a multiplication factor less than 0.90 dry or flooded. This criteria is met for all fuel types presently in use and is verified each time fuel of another type and/or enrichment is introduced into the facility. The amount of uranium 235 requested in the proposed amendment is substantially less than that amount allowed by this criteria.

The proposed license change, in no way, involves a change in the technical specifications.

**NRG DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
(TEMPORARY FORM)

CONTROL NO: 6009

FILE: \_\_\_\_\_

FROM: Northern States Pwr. Minneapolis, Mn. 55401 L O Mayer		DATE OF DOC 5-30-75	DATE REC'D 6-2-75	LTR XXX	TWX	RPT	OTHER
TO: Mr. A. Giambusso		ORIG 3 signed	CC	OTHER	SENT AEC PDR XXXX SENT LOCAL PDR XXXX		
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D 40		DOCKET NO: 50-263	
XXXXXX							

DESCRIPTION: Ltr trans the following:

**ACKNOWLEDGED**

ENCLOSURES: Encl. notatized 5-30-75,  
Request for Amdt. to operating License No.  
DPR-22/Tech Spec. , the requested Amdt. would  
increase the allowed uranium 235 inventory  
from 2300 to 3200 kilograms...

40 copies encl. rec'd

PLANT NAME: Monticello

FOR ACTION/INFORMATION wtm 6-3-75

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CASE	PAWLICKI	BALLARD	P. KREUTZER (E)	PLANS
GIAMBUSO	SHAO	SPANGLER	J. LEE (L)	MCDONALD
BOYD	STELLO	ENVIRO	M. MAIGRET (L)	CHAPMAN
MOORE (L)	HOUSTON	MULLER	S. REED (E)	DUBE (LH)
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REG OPR (2)	LAINAS	REKIN	G. WILLIAMS (E)	WIGGINTON
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NPIC	VOLLMER		R. INGRAM (L)	
STEELE				

**EXTERNAL DISTRIBUTION**

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1 - TIC (ADMINISTRATIVE) (1)(2)(10)	1 - W. PENNINGTON, Rm E 201 GT	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGDABIAN	1 - AGMED PROT. COLLEGE
1 - Newton Anderson		Rm B-127 GT
1 - ACRS		1 - J. D. BUNKLEY, Rm E 201 GT