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|   |              |              |            | MEMO           | RPT | OTHER |
| Northern States Power Company<br>Minneapolis, Minnesota 55401<br>E. C. Ward | 11-03-72     | 11-06-72     | X          |                |     |       |
| TO:   | ORIG         | CC           | OTHER      | ENVIRO         |     |       |
| Daniel R. Muller  | 3 signed     | 40           |            | SENT AEC PDR   |     | X     |
|   |              |              |            | SENT LOCAL PDR |     | X     |
| CLASS:  | INPUT        | NO CYS REC'D | DOCKET NO: |                |     |       |
| <u>U</u> /PROP INFO   |              | 43           | 50-263     |                |     |       |

**DESCRIPTION:**  
Ltr re our 9-28-72 ltr trans the following:

**ENCLOSURES:**  
Info Pertaining To The Environmental Impact Review notarized 10-3-72...consists of Requested Info Needed To Augment Monticello Environmental Statement In Response To Court Order Of 7-28-72.

**ACKNOWLEDGED Do Not Remove**  
(43 cys encl rec'd)

**PLANT NAMES:** Monticello

| FOR ACTION/INFORMATION |              |              |                | 11-06-72 | rht |
|------------------------|--------------|--------------|----------------|----------|-----|
| BUTLER(L)              | SCHWENCER(L) | SCHEMEL(L)   | KNIGHTON(E)    |          |     |
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| ✓ REG FILE          | TECH REVIEW | VOLLMER     | ✓ HARLESS  | WADE          | E     |
| ✓ AEC PDR           | HENDRIE     | DENTON      |            | SHAFFER       | F & M |
| OGC, ROOM P-506A    | SCHROEDER   | GRIMES      | F & M      | BROWN         | E     |
| ✓ MUNIZING/STAFF    | MACCARY     | GAMMILL     | SMILEY     | ✓ G. WILLIAMS | E     |
| CASE                | LANGE       | KASTNER     | NUSSBAUMER | E. GOULBOURNE | L     |
| GIAMBUSSO           | PAWLICKI    | BALLARD     |            | A/T IND       |       |
| BOYD-L(BWR)         | SHAO        | FINE        | LIC ASST.  | BRATTMAN      |       |
| DEYOUNG-L(PWR)      | KNUTH       |             | SERVICE L  | SALTZMAN      |       |
| ✓ SKOVHOLT-L        | STELLO      | ENVIRO      | MASON L    |               |       |
| P. COLLINS          | MOORE       | MULLER      | WILSON L   | PLANS         |       |
| REG OPR             | HOUSTON     | DICKER      | MAIGRET L  | MCDONALD      |       |
| ✓ FILE & REGION (2) | TEDESCO     | KNIGHTON    | SMITH L    | DUBE          |       |
| MORRIS              | LONG        | YOUNGBLOOD  | GEARIN L   |               |       |
| STELLE              | LAINAS      | PROJ LEADER | ✓ DIGGS L  | INFO          |       |
|                     | ✓ BENAROYA  |             | TEETS L    | C. MILES      |       |
|                     | ✓ ZIEMANN-L |             | LEE L      |               |       |
|                     |             | REGAN       |            |               |       |

**EXTERNAL DISTRIBUTION**

|   |                                      |                         |
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| ✓ 1-LOCAL PDR <u>Minneapolis, Minnesota</u> |                                      |                         |
| 1-DTIE(ABERNATHY)                           | ✓ (1) [REDACTED]-NATIONAL LAB'S PNWL | 1-PDR-SAN/LA/NY         |
| 1-NSIC(BUCHANAN)                            | 1-R. CARROLL-OC, GT-B227             | 1-GERALD LELLOUCHE      |
| 1-ASLB-YORE/SAYRE                           | ✓ 1-R. CATLIN, A-170-GT              | BROOKHAVEN NAT. LAB     |
| WOODWARD/H. ST.                             | 1-CONSULANT'S                        | 1-AGMED(WALTER KOESTER, |
| 16-CYS ACRS HOLDING                         | NEWMARK/BLUME/AGABIAN                | Rm C-427, GT)           |
|   |                                      | 1-RD...MULLER...F-309GT |

# NSP

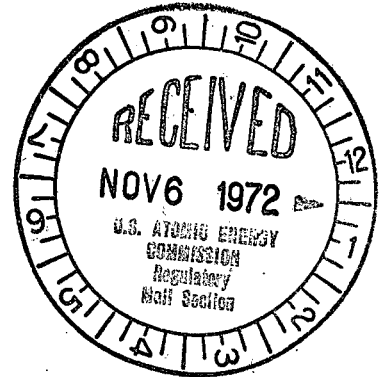
NORTHERN STATES POWER COMPANY

November 3, 1972

Regulatory

File Cy.

Mr Daniel R Muller  
Assistant Director for Environmental Projects  
Directorate of Licensing  
U S Atomic Energy Commission  
Washington, DC 20545



Dear Mr Muller:

MONTICELLO NUCLEAR GENERATING PLANT E-5979  
AEC Docket Number 50-263

Enclosed are three signed originals and 40 conformed copies of information needed to augment your environmental impact review of the Monticello Plant.

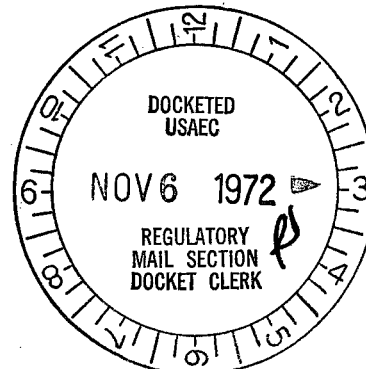
This information is in response to your letter dated September 28, 1972.

Yours very truly,

A handwritten signature in cursive script that reads "E C Ward".

E C Ward, Director  
Engineering Vice Presidential Staff

Enclosure



6060  
*ps*

## UNITED STATES ATOMIC ENERGY COMMISSION

NORTHERN STATES POWER COMPANY

Monticello Nuclear Generating Plant


Docket No. 50-263

INFORMATION PERTAINING TO THE ENVIRONMENTAL IMPACT REVIEW

Northern States Power Company, a corporation organized under the laws of the State of Minnesota, hereby submits this information pertaining to the Monticello Environmental Impact Review as requested by Mr Daniel R Muller, Assistant Director for Environmental Projects, Directorate of Licensing, U S Atomic Energy Commission.

NORTHERN STATES POWER COMPANY

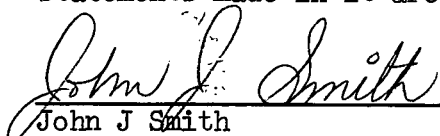
By



Arthur V Dienhart

Vice President - Engineering

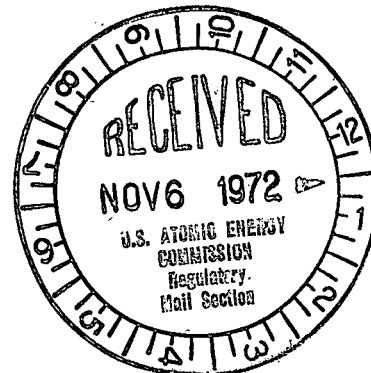
On this 3 day of November, 1972, before me, a notary public in and for said County, personally appeared Arthur V Dienhart, Vice President - Engineering, and being first duly sworn acknowledged that he is authorized to execute this document in behalf of Northern States Power Company, that he knows the 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.



John J Smith  
Notary Public, Hennepin County, Minnesota

JOHN J. SMITH

Notary Public, Hennepin County, Minnesota  
My Commission Expires March 3, 1976



REQUESTED INFORMATION NEEDED TO AUGMENT  
MONTICELLO ENVIRONMENTAL STATEMENT  
IN RESPONSE TO COURT ORDER  
OF July 28, 1972

MONTICELLO NUCLEAR GENERATING PLANT E-5979  
AEC Docket Number 50-263

The information provided herein, applicable to the Monticello Nuclear Generating Plant environmental impact review, is in response to a letter dated September 28, 1972 from Mr Daniel R Muller, Assistant Director of Environmental Projects, Directorate of Licensing, U S Atomic Energy Commission to Mr Arthur V Dienhart, Vice President - Engineering, Northern States Power Company.

Responses to all seven items listed in referenced letter are as follows:

- 1 (a) If a decision had been made to build a coal-fired power plant in early 1970 to replace the Monticello Nuclear Generating Plant under construction at that time, the design basis for the rate of release of pollutants up the stack would have reflected these three factors:
  - 1) In the past NSP has equipped its plants with the best available particulate control equipment. A large fossil plant would have been similarly equipped, probably utilizing electrostatic precipitators.
  - 2) Sulfur oxide emission control would have been limited to the sulfur content of the fuel. A large fossil plant would probably have been designed to burn low sulfur western coal.
  - 3) Because of the lack of positive regulatory guidelines and available technology, nitrogen oxide emission control would not have been a design factor.
  
1. (b) Replacement of the Monticello Nuclear Generating Plant with a similarly sized fossil plant in early 1970 would have cost NSP an estimated 270 million dollars. This total plant cost includes: estimated reactor plant equipment and construction losses; nuclear fuel penalties; costs to dismantle those portions of the nuclear plant not necessary to the fossil plant; differential costs to purchase power during the interim period; and costs of additional equipment, materials and construction activity needed to build the fossil plant.

- 1 (c) The annual operating and maintenance cost for such a fossil plant is estimated at  $2\frac{1}{4}$  million dollars. This figure includes payroll, maintenance expenses and general supplies.
- 1 (d) The estimated annual fuel costs for the fossil plant would be 15 million dollars.
- 2 In early 1970 the percent annual increase in demand forecasted through 1976 was:

|                |        |
|----------------|--------|
| 1971 over 1970 | 8 1/4% |
| 1972 over 1971 | 8 1/4% |
| 1973 over 1972 | 8 1/4% |
| 1974 over 1973 | 8 3/4% |
| 1975 over 1974 | 8 1/2% |
| 1976 over 1975 | 8 1/4% |

- 3 The escalation of construction costs occurring during the 18-month period January 1, 1970 to July 1, 1971 is estimated at 19%. The estimate assumes that the entire cost of the project is delayed for the 18-month period.
- 4 The reserve requirement for NSP in early 1970 was 12%.
- 5 In early 1970 the estimated annual fuel, operating and maintenance costs for the Monticello Nuclear Generating Plant for a typical year after startup was about 8 million dollars. A cost breakdown is estimated as follows:

|   |             |
|---|-------------|
| Payroll   | \$1,000,000 |
| Miscellaneous Supplies<br>& Maintenance Materials | 1,000,000   |
| Annual Fuel Costs                                 | 6,000,000   |

- 6 Based on the 1970 MARCA R-362 Report to the FPC and adjustments to these figures resulting from projected delays in the construction of certain generating plants underway at that time, surpluses which possibly would have been available for purchase on a committed basis to replace the Monticello capacity were:

|      |                       |
|------|-----------------------|
| 1970 | (Power was Purchased) |
| 1971 | 42 Mw                 |
| 1972 | -203 Mw*              |

|      |          |
|------|----------|
| 1973 | -772 Mw* |
| 1974 | -186 Mw* |
| 1975 | -273 Mw* |
| 1976 | 23 Mw    |

\*Negative value indicates MARCA pool below its reserve requirement for designated amount.

7 Scheduled additions to the generating capacity of NSP as of early 1970 were:

| <u>Estimated<br/>In-Service Date</u> | <u>Type of Plant</u>               | <u>Capacity</u> |
|--------------------------------------|------------------------------------|-----------------|
| May 1, 1970                          | Key City Peaking                   | 70 MWe          |
| November 1, 1970                     | Monticello Nuclear                 | 533 MWe         |
| May 1, 1970                          | Inver Hills Peaking                | 313 MWe         |
| October 1, 1972                      | Prairie Island Nuclear<br>Unit #1  | 530 MWe         |
| May 1, 1974                          | Prairie Island Nuclear<br>Unit #2  | 530 MWe         |
| 1975                                 | (Additional Peaking)               | 200 MWe         |
| 1976                                 | Sherburne County Fossil<br>Unit #1 | 680 MWe         |
| 1977                                 | Sherburne County Fossil<br>Unit #2 | 680 MWe         |