

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:7909250536 DOC.DATE: 79/09/18 NOTARIZED: NO DOCKET #
 FACIL:50-263 Monticello Nuclear Generating Plant, Northern States 05000263
 AUTH.NAME AUTHOR AFFILIATION
 HOFFMAN,T, Minnesota, State of
 RECIP.NAME RECIPIENT AFFILIATION
 SELLS,D.E, Environmental Projects Branch 2

SUBJECT: Responds to 790828 ltr re environ issues. Discusses chemical wastewater discharged to Mississippi River, thermal effects of cooling water discharge to benthic communities, cold shock mortality & fish impingement & entrainment.

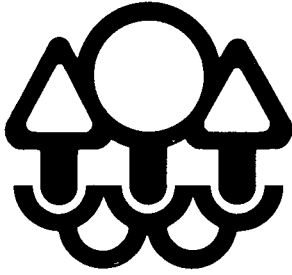
DISTRIBUTION CODE: C002B COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2
 TITLE: Environ. Comments

NOTES: -----

| | RECIPIENT ID CODE/NAME | COPIES LTR ENCL | RECIPIENT ID CODE/NAME | COPIES LTR ENCL |
|-----------|------------------------|-----------------|------------------------|-----------------|
| ACTION: | 05 PM S KERLUSEK | 1 1 | 17 BC EPB 2 | 1 1 |
| | 18 LA EPB 2 | 1 1 | AD MOORE | 1 0 |
| INTERNAL: | 01 REG FILE | 1 1 | 02 NRC PDR | 1 1 |
| | 07 T&E | 2 2 | 09 ENVN SPEC BR | 1 1 |
| | 10 CST BNFT ANL | 1 1 | 11 TA/EDO | 1 1 |
| | 12 AD SITE TECH | 2 2 | 14 ACIDENT ANALY | 1 1 |
| | 15 EFLT TRT SYS | 1 1 | 16 RAD ASMT BR | 1 1 |
| | 19 DIR DSE | 1 1 | AD ENVIRON TECH | 1 0 |
| | AD SITE ANALY | 1 0 | OELD | 1 0 |
| EXTERNAL: | 03 LPDR | 1 1 | 04 NSIC | 1 1 |
| | 20 NATL LAB | 5 5 | ACRS | 1 0 |

LTR
 B GRIMES
 ORB 3 BC
 T KEVERN
 ORB 3 LA

SEP 26 1979



Minnesota Pollution Control Agency

SEP 18 1979

Donald E. Sells, Acting Chief
Environmental Projects Branch No. 2
Division of Safety and Environmental Analysis
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Environmental Issues - NSP Monticello Nuclear
Generating Plant
NRC Concerns Discussed at Meeting of July 31, 1979

Dear Mr. Sells:

This letter is in response to your letter of August 28, 1979, requesting confirmation of Minnesota Pollution Control Agency (MPCA) actions with respect to environmental issues at the Monticello Nuclear Generating Plant. At the meeting with your staff on July 31, 1979, we discussed the following areas which cover most all of the non-radiological environmental aspects:

1. Chemical Wastewater Discharged to the Mississippi River. These wastes consist chiefly of demineralizer regenerates (20,000 gallons/day) and infrequent blowdowns from a plant heating system boiler. The plant also discharges miscellaneous drainage from floor drains via the turbine building sump. The above minor discharges are identified and monitored as required by the NPDES Permit, and have been in compliance with the effluent limitations of the Permit.

In addition to these chemical releases, chlorine is also added and discharged via the condenser cooling system. The Company completed a chlorine optimization study to determine the minimal quantity of chlorine required to prevent biofouling, and the conclusions of this study are consistent with the NPDES effluent limitation of .2 mg/l total residual chlorine, discharged no longer than two hours per day. The plant has had no problem meeting the current limitation of .2 mg/l.

Phone: 612-296-7301

1935 West County Road B2, Roseville, Minnesota 55113
Regional Offices · Duluth/Brainerd/Detroit Lakes/Marshall/Rochester

Equal Opportunity Employer



790925 0 536

*COO 2
ES/10*

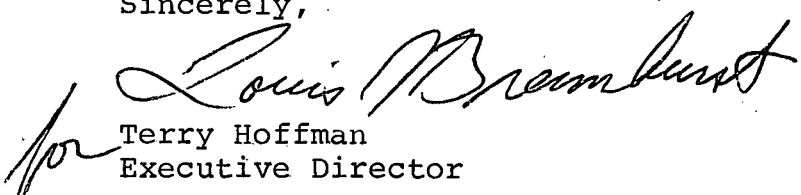
2. Thermal Effects of Cooling Water Discharge to Benthic Communities. MPCA staff have reviewed and discussed in detail the 316(a) demonstration of thermal impacts and find that the thermal discharges from Monticello currently offer no substantial detrimental effects to the benthic and fisheries communities.

3. Cold Shock Mortality. During the past operating history of the plant, fish have been killed as a result of cold shock when the plant has abruptly shut down during the winter. Most of the cold shock mortality has been observed in the discharge canal. NSP and MPCA staff investigated the areas impacted by cold shock and concluded that at a minimum 2/3 of the total cold shock area was contained in the discharge canal. In order to eliminate this problem the Company is designing a fish barrier-discharge overflow structure to be located at the confluence of the discharge canal and the river. This structure will eliminate cold shock mortality in the discharge canal and reduce potential cold shock mortality in the river directly adjacent to the discharge. Pursuant to design and mathematical modeling, this structure will likely be constructed by the end of 1980.

4. Fish Impingement and Entrainment. Pursuant to review of the 316(b) demonstration MPCA staff conclude that impingement-entrainment at the Monticello Plant offers no substantial detriment to the fisheries population. However, the Company has been requested to make some operational changes such as continuous operation of vertical traveling screens during peak impingement periods. The Company has also investigated reduction of water appropriation during peak entrainment periods (May, June) to the extent practicable without a plant derate.

I hope the above adequately describes MPCA activity in the areas of non-radiological environmental issues at the Monticello Plant and documents our belief that all areas are being adequately addressed. Should you have any additional questions please contact me at 612-296-7301.

Sincerely,


Terry Hoffman
Executive Director

TH/dc