FROM:
Northern States Power Company
Minneapolis, Minnesota 55[redacted]
R. C. Duncanson, Jr.

TO:
Dr. Peter A. Morris

CLASSIF: U
POST OFFICE
REG. NO:

DESCRIPTION: (Must Be Unclassified)
Ltr reporting unusal occurrences at the Monticello Nuclear Generating Plant...
(1) On 9-22-71 the #12 RHR Service Water Pump motor failed during operation

ENCLOSURES:
(2) On 9-8-71 a Group 3 Isolation Valve (MO 2398) failed to close...

REMARKS:

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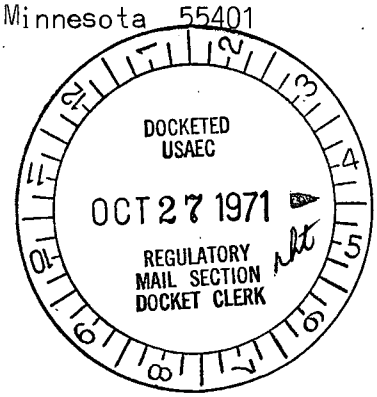
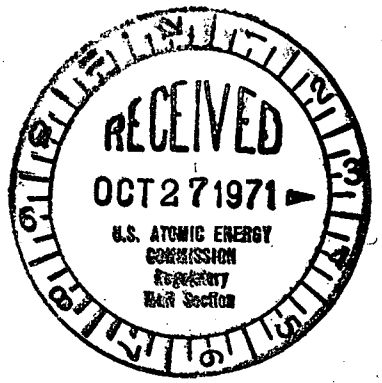
NORTHERN STATES POWER COMPANY
Minneapolis, Minnesota 55401

October 21, 1971





Dr. Peter A. Morris
Division of Reactor Licensing
United States Atomic Energy Commission
Washington, D.C. 20545

Dear Dr. Morris:

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Reporting of Occurrences

Two conditions have occurred recently at the Monticello Nuclear Generating Plant which we interpret to be reportable in accordance with Section 6.6.C.1 of the Technical Specifications. The Region III Compliance Inspector has been notified of these occurrences.

1. RHR Service Water Pump Failure

On September 22, 1971, the #12 RHR Service Water Pump motor failed during operation. At the time of the failure, the pump was supplying water to the #12 RHR heat exchanger which was being used to cool the torus water following HPCI testing. The motor failure resulted from a thrust bearing failure which allowed the rotor to rotate eccentrically, severely damaging the stator windings and laminations. The pump motor was repaired and reinstalled on October 16th. Following successful testing of the system, the #12 RHR Service Water Pump was declared operational.

Following the failure of the #12 RHR Service Water Pump, testing of the remaining operable RHR service water pumps disclosed that the pump discharge pressures were below the required pressures when operating at indicated rated flow. Although the available data indicated that the flow measurements were erroneous, the plant was shutdown on September 24 while an investigation of the situation continued. On September 25th, it was discovered that the basic calibration data for the flow orifice was in error. As a result of this error, the flow meters were not correctly calibrated and the indicated flows were several hundred gpm below the actual flow values. With the correct orifice calibration data, it was verified that the RHR service water system performance was as required. The plant was restarted on September 25th.

2. Failure of a Group 3 Isolation Valve to Isolate

On September 8, 1971, a reactor water cleanup demineralizer outboard isolation valve MO 2398 failed to close when an isolation signal existed following a reactor scram. The inboard isolation valve MO 2397 and the outboard isolation valve MO 2399 isolated the reactor water cleanup system as required.

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The investigation of the problem revealed that a mechanical interlock between the opening relay coil and the closing relay coil was installed improperly and was preventing the closing relay from operating. The improper installation of the mechanical interlock, which would be expected to cause intermittent type failures, was apparently made during the manufacturing of the valve breaker. One previous operating failure of valve MO 2398, which was reported in the September 9, 1971, letter to Dr. Peter Morris, may have been caused by the mechanical interlock problem.

The mechanical interlock was removed and reinstalled properly. Valve MO 2398 was demonstrated to operate properly and isolate automatically.

Unusual Occurrence reports have been written for these two occurrences and will be available to the Region III Compliance Inspector for review during his next visit.

Yours very truly,

R.O. Duncanson, Jr., P.E.
Gen. Sput. of Power Plants-Mechanical
Chairman-Monticello Safety Audit Committee

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