



**NORTHERN STATES POWER COMPANY**

MINNEAPOLIS, MINNESOTA 55401

September 7, 1979

United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Washington, D.C. 20555

Attention: Director, Division of Reactor  
Construction Inspection

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
Dockets No. 50-282 and No. 50-306

In response to IE Bulletin 79-15, the following is submitted:

Item 1

Prairie Island is equipped with two safety-related diesel driven cooling water pumps that are similar to those shown in Figures 1 and 2 of IE Bulletin 79-15.

Item 2

These pumps are designed to supply cooling water to the plant in the event that normal cooling water pumps are not available. They were manufactured by the Worthington Pump Corporation. The model number is 20 QL-26. The pumps are designed to deliver 13,000 CPM at a discharge head of 240 feet.

Item 3

See the attached drawings for the overall dimensions of the pumps.

Item 4

Each pump was preoperationally tested during plant construction. The pumps are tested monthly and at other times that operability must be verified. Preventive maintenance is performed on the pumps and driver systems at six months, one year, and five year intervals. Corrective maintenance is performed on the pumps and driver systems when necessary.

The preoperational test on each pump included tests to determine the suction head available and the shutoff head delivered. The pumps were initially operated for one hour and then operational data was recorded. The operational data recorded included suction head, discharge head, flow rates, pump speeds, bearing temperatures, and vibration data. Following the one hour test, the pumps were operated for two weeks and operational data was recorded hourly. After the two week run, each pump was started and stopped 150 times. The last test performed was to increase the flow to 17,500 GPM on each pump and then record operational data. The pumps performed as designed during the preoperational testing.

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Each pump is tested monthly to verify operability. The pumps are run for a minimum of one-half hour and then operational data is recorded. The pump flow rate and discharge head are compared to the pump curve to verify operability. The pumps are also tested when conditions prescribed in the Prairie Island Technical Specifications require that operability be verified. A review of the tests performed to date revealed that the pumps have always performed as designed.

Preventive maintenance is performed on the pumps and driver systems at six month, one year, and five year intervals. At six month intervals, the pump bearing lubricating water supply system is cleaned. At one year intervals, the pump tubing tension bearing clearance is checked and the bearing is cleaned. All other preventive maintenance is performed on the driver system.

## Item 5

No significant operational problems have been encountered with the Worthington Pumps, and no major maintenance has been performed on the pumps. Corrective maintenance has been limited to cleaning of the pump bearing lubricating system.

## Item 6

No corrective maintenance has been performed on the pumps that has affected the operability of the pumps since preoperational testing was completed in October, 1973. The 12 and 22 Diesel Driven Cooling Water Pumps have been run at least 113 and 99 times, respectively, since October, 1973. Each run was for a minimum of one-half hour at near rated flow. The longest continuous operation at or near rated flow was the two-week test run conducted during preoperational testing. Both pumps were operable at the completion of the test.

Yours very truly,



L. J. Wachter

Vice President - Power Production  
and System Operation

cc: Mr. G. Charnoff (w/o enclosure)  
Mr. James G. Keppler (w/o enclosure)

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Enclosure

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