

## REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

SUBJECT: Submits addl info related to qualification of ADS  
accumulators installed at plant.

NOTES: NRR/LONG, W.

05000263

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ADD: Bill Long Ltr Encl.  
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Northern States Power Company

 414 Nicollet Mall  
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003057

September 5, 1984

 Director  
 Office of Nuclear Reactor Regulation  
 U S Nuclear Regulatory Commission  
 Washington, DC 20555

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

Information Related to Qualification of  
ADS Accumulators (NRC Letter dated July 16, 1984)

 Reference (a) Letter, L O Mayer (NSP) to the Office of Nuclear Reactor  
 Regulation dated December 31, 1981.

 Reference (b) Letter, D M Musolf (NSP) to the Office of Nuclear Reactor  
 Regulation dated June 28, 1983.

In a letter dated July 16, 1984 from Darrel G Eisenhut, Director, Division of Licensing, we were requested to submit, within 45 days of receipt, additional information under oath or affirmation related to qualification of the ADS accumulators installed at the Monticello Nuclear Generating Plant. The purpose of this letter is to provide the information requested in Mr Eisenhut's letter.

ITEM 1

Describe in detail (a) how the long-term capability requirement of 100 days following an accident is met, or (b) the justification as to why a shorter time period is sufficient capability, or (c) provide a commitment and schedule for upgrading to the 100-day long-term capability requirement.

NSP Response - To meet the long-term capability requirement, a seismic category I supply header will be installed to one or more non-ADS Safety/Relief Valves (S/RV). Components (e.g., air control solenoid valves) will be qualified in accordance with guideline of IEB 79-01b for 100-day service. The selected S/RV(s) will be controlled by manual remote means.

Engineering and construction will begin during our present cycle 11 refueling outage. Construction will be completed prior to the end of our cycle 13 refueling outage.

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4r. Encl.

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ITEM 2

Describe the periodic leakage test performed in sufficient detail to demonstrate the achievability of the zero leakage rate allowed. Re-examine the leakage margin selected and insure that it is consistent with the time period given in response to question 1 of Reference (b).

NSP Response - As stated in Reference (a), leak testing of the pneumatic system to the relief valves is included in our preventative maintenance program. A 10-minute full pressure leak rate test at 100 psig for each of the eight S/RV's is done in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWV, Paragraph 3420, and Technical Specification 4.15. The test method has a minimum detectable leak rate of 0.022 SCFH. The test, which will be completed this outage, includes all potential leakage paths (i.e., S/RV air actuator diaphragms, solenoid seats, solenoid body/bonnet joints and check valve seals). The acceptance criterion is zero detectable leakage.

The seven day time period discussed in Reference (b) was arbitrarily based on the environmental qualification records for the ADS solenoids. The General Electric purchase specification for the Monticello Emergency Blowdown System specifies the design requirement for the S/RV's as ten hours. Assuming five actuation cycles and a 10 hour time period, the allowable leakage is 0.211 SCFH per ADS accumulator system. The accuracy and sensitivity of the leakage test is more than adequate to assure this criterion is satisfied.

During our current reviews of environmental qualification records we discovered that the lubricant used in the ADS solenoids during original environmental qualification (EQ) testing was found to deteriorate and cause excessive leakage. Subsequent environmental qualification tests of lubricants disclosed a superior lubricant which is used in our installed valves. For this reason, our valves should not exhibit excessive leakage in a post accident environment. However, replacement valves of another type that have undergone EQ testing with acceptable leakage will be installed prior to the end of the current outage.

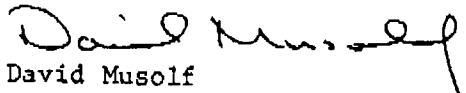
It should also be noted that the normal supply for the instrument air header in the drywell is nitrogen from a large outdoor storage tank. This tank and its associated atmospheric evaporator, will keep the air header, and the S/RV accumulators, fully charged for a long period of time. While most of this piping is not seismically qualified, it is well constructed and durable. The three ADS valves and the five non-ADS S/RV's (provided with manual control capability and accumulators) will therefore remain operable under most conditions. This design is tolerant of large accumulator check valve and solenoid valve leakages.

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Please contact us if you require additional information related to our response. As discussed above, we believe our commitment to plant modifications for a fully qualified long-term air supply for at least one S/RV and our program of valve leakage testing and solenoid valve replacement fully address this TMI Action Plan requirement.



David Musolf  
Manager - Nuclear Support Services

DMM/bd

c: Regional Administrator-III, NRC  
NRR Project Manager, NRC  
Resident Inspector, NRC  
G Charnoff

Attachment

003060

## UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

Docket No. 50-263

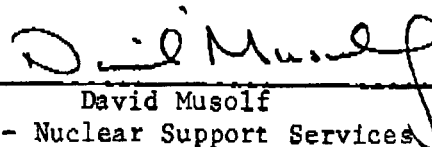
## RESPONSE TO NRC LETTER DATED JULY 16, 1984

Northern States Power Company, a Minnesota corporation, hereby submits a response to an NRC Letter dated July 16, 1984 related to qualification of ADS accumulators for the Monticello Nuclear Generating Plant.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By



David Musolf

Manager - Nuclear Support Services

On this 5th day of September, 1984 before me a notary public in and for said County, personally appeared David Musolf, Manager - Nuclear Support Services, and being first duly sworn acknowledged that he is authorized to execute this document on 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.

