

NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

April 1, 1981

Director of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555



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

Information Submitted in Response to
TMI Plan Items II.K.3.16 and II.K.3.18

➔ Ref: (a) Letter from D B Waters, BWR Owner's Group, to D G Eisenhut, Director, Division of Licensing, Office of Nuclear Reactor Regulation, USNRC, dated March 31, 1981

Accession # 8104200300

(b) Letter from L O Mayer, NSP, to Director of Nuclear Reactor Regulation, USNRC, dated September 17, 1979

The following is submitted in response to NUREG-0737 items II.K.3.16, Reduction of Challenges and Failures of Relief Valves, and II.K.3.18, Modification of Automatic Depressurization System Logic. These items were addressed by the BWR Owner's Group in Reference (a).

Item II.K.3.16

In regard to item II.K.3.16, NSP concurs with the BWR Owner's Group feasibility study. The following modifications and programs have either been implemented or are being prepared for implementation. The identification numbers coincide with those in the BWR Owner's Group submittal. We believe these actions satisfactorily address all action needed to resolve Item II.K.3.16.

3.1.3.1 Low-Low Set Relief or Equivalent Manual Actions

Monticello has committed to implement the Emergency Procedure Guidelines as developed by the BWR Owner's Group.

3.3.4 More Stringent Leakage Criteria and Early Removal of Leaking Valves

Monticello is implementing modifications that will improve early indication of a leaking valve. Discharge line thermocouples are being obtained as recommended in General Electric SIL No. 178. These thermocouples will be installed in the discharge line as recommended in GE SIL No. 196 and criteria will be developed to remove and repair leaky valves. Discharge line temperatures are

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 MAYER, L.O. Northern States Power Co.
 RECIP. NAME: RECIPIENT AFFILIATION:
 Office of Nuclear Reactor Regulation, Director

SUBJECT: Submits info in response to NUREG-0737 Items II.K.3.16 re
 reduction of challenges & failures of relief valves &
 II.K.3.18 re mod of automatic depressurization sys logic.
 Util concurs w/BWR owners group feasibility study.

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already trended. These improvements should provide more assurance of detecting leaky valves.

3.3.2 Control of Pneumatic Supply Pressure to S/RV's

The problem with high pneumatic supply pressure to safety/relief valves (S/RV's) was addressed in IE Bulletin 80-25. Monticello has committed to install a redundant regulator in the N₂ supply to further reduce this potential problem.

3.1.3.2 Revised Relief Valve Setpoints

Monticello increased the setpoint from 1068 to 1096 psig in 1978.

3.1.3.4 Increase Main Steam Line Flow Setpoint

The main steam line flow setpoint has been increased from 120% to 140%.

3.1.4.2 Improved Recirculation Flow Control System

This modification has been implemented at Monticello. A scoop tube lock-up system which monitors control system performance will lock the scoop tube when Recirc MG set generator speed deviates by more than + 10% from speed demand. This system has successfully prevented reactor scrams due to speed excursions in the recirc flow control system.

3.1.4.3 Reduce Isolations Caused by Surveillance Testing

Improvements in surveillance testing techniques have been implemented at Monticello. These include:

- 1) Use of pressurizing valves to slowly repressurize isolated instruments following calibration thereby reducing the possibility of hydraulic bumps when returning these instruments to service.
- 2) Use of a "wet" calibration technique on the Yarway level instruments which reduces the time that these instruments are out of service for calibration. This in turn minimizes the time that the unit is operating with one of the isolation subchannels tripped.
- 3) The Instrument and Control Specialist (I&CS) training program requires that any new I&CS personnel perform each surveillance test three times under the supervision of an experienced I&CS technician before he is allowed to perform surveillance tests on his own. To assure that surveillance testing is being performed in accordance with procedures, the Quality Control group monitors at least 20% of all I&CS activities involving safety-related equipment.

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The above listed modifications and programs alone give an order of magnitude reduction in the likelihood of a stuck open S/RV. Other modifications described in Reference (b) have been performed that give further assurance that a S/RV will not stick open. Reference (b) describes the improvements that have been made to the three stage S/RV's at Monticello. A copy of Reference (b) is attached. It should be noted that Monticello has not had a stuck open valve since 1973.

On June 6, 1980 the BWR Owner's Group, SRV Committee, presented to the NRC a summary of problems with S/RV's. Although the three stage Target Rock S/RV's were initially prone to stick open, the modification programs as described in the referenced meeting have produced a significant reduction in the number of three stage Target Rock stuck open S/RV events.

Item II.K.3.18

In regard to item II.K.3.18, NSP concurs with the BWR Owner's Group feasibility study. Proposed modifications will be submitted for NRC approval by April 1, 1982.

Please contact us if you have any questions related to the information we have supplied.



L O Mayer, PE
Manager of Nuclear Support Services

LOM/DMM/jh

cc J G Keppler
G Charnoff