UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. DPR-22

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

1.0 INTRODUCTION

By letter dated June 27, 1985, Northern States Power Company (the licensee) requested Technical Specifications (TS) changes to amend Appendix A of Facility Operating License No. DPR-22. The licensee proposed to increase the safety/relief valve actuation setpoints and low-low set logic setpoints by 12 psi.

2.0 EVALUATION

Monticello Nuclear Generating Plant is equipped with eight Target Rock three stage safety/relief valves (SRV's). Three non-automatic depressurization system SRV's are selected as low-low setpoint logic (LLS) SRV's. The nominal opening/closing setpoints for all SRV's are 1108/1078 psig. The opening/closing setpoints for three LLS SRV's are 1060, 1050, 1040 psig and 980, 970, 960 psig respectively. The proposed changes would increase the nominal opening/closing setpoints for all SRV's to 1120/1090 psig. The three LLS SRV's opening/closing setpoints would be 1072, 1062, 1052 psig and 992, 982, 972 psig, respectively.

General Electric has performed an analysis for the licensee (NEDO-30771, "Safety Relief Valve Simmer Margin Analysis for the Monticello Nuclear Generating Plant") to optimize the simmer margin while maintaining required safety margins for vessel overpressure protection, fuel peak cladding temperature and loads associated with the actuation of SRV's. The study also included the impact of increased valve setpoints on High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Systems Operation. The study concluded that the SRV setpoint may safely be increased by 12 psi over the Monticello Cycle 11 SRV setpoints. The setpoint increase is limited by the HPCI and RCIC rated design pressure.

The staff has reviewed the proposed request and agrees with the licensee that this increase in safety/relief valve simmer margin will increase valve reliability by reducing the probability of valve leakage and spurious opening during operations. The increase in the

simmer margin is one of the actions recommended by the NRC staff to implement the requirements of NUREG-0737, Item II.K.3.16, "Improvements to Reduce Challenges and Failures of Safety/Relief Valves." An SRV simmer margin is the difference between the SRV set pressure and the reactor pressure vessel operating pressure. The proposed changes indicate no adverse effect on the plant performance or safety margin. The staff, therefore, finds the proposed changes acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

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Dated: April 8, 1986