



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 123 TO FACILITY OPERATING LICENSE NO. DPR-46
NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated April 29, 1988 (Change No. 35) the Nebraska Public Power District (the licensee) requested an amendment to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The proposed amendment would change the Technical Specifications for the Standby Liquid Control System (SLCS) to reflect 10 CFR 50.62 modifications.

2.0 DISCUSSION

The licensee has requested revisions to the Cooper Technical Specifications to reflect modifications being made during the Cycle 11 refueling outage to comply with 10 CFR 50.62, the Anticipated Transient Without Scram (ATWS) Rule. The modifications to the SLCS have been previously evaluated by the staff (Ref: Letter from William O. Long to George A. Trevors dated December 23, 1987) and determined to be consistent with the requirements of the Rule. The modifications provide for simultaneous two-pump operation, and revised sodium-pentaborate solution volume-concentration limits. The Technical Specifications amendment requested by the licensee would:

- (1) Revise SLCS pump discharge pressure relief valve settings to raise the minimum opening pressure from 1400 psig to 1450 psig, and raise the minimum reset pressure from 1215 psig to 1300 psig,
- (2) Revise the monthly flow rate surveillance test to clarify that pump suction is to be from the "Standby Liquid Control Storage Tank" during the test, and
- (3) Revise the SLCS Tank volume vs. sodium pentaborate concentration limits figure.

Relief Valve Minimum Opening and Reset Pressure Settings

The Technical Specifications specify a minimum and a maximum relief valve opening pressure setpoint and a minimum reset pressure setpoint. The maximum opening pressure setpoint is based on system overpressure protection requirements and would remain unchanged at 1680 psig. The purpose of the minimum opening pressure and reset pressure setpoints is to preclude recirculation flow through the relief valves. Recirculation would allow

a portion of the pumped solution to flow back to the pump suction instead of to the reactor vessel, and thereby reduce the rate of boron injection. Due to the increased discharge pressure resulting from two-pump operation, an increased minimum opening setpoint and an increased minimum reset setpoint is necessary. As stated in the December 23, 1987 evaluation, the increased minimum setpoints will restore the margin between valve operating pressure and pump operating discharge pressure, and are acceptable.

Monthly Surveillance Test Pump Suction

The Surveillance Requirement presently states that boron solution will be pumped "from the Standby Liquid Control System through the recirculation path." The statement would be changed to clarify that the solution will be pumped from the Storage Tank. This would eliminate any ambiguity as to whether suction is to be from the Test Tank or Storage Tank (the two possible sources) for the monthly flow verification test. The intent of the test requires that suction be from the Storage Tank. The proposed change is considered a simple clarification and is acceptable.

Storage Tank Volume-Concentration Limits

The volume-concentration envelope of the figure would be revised to specify the new minimum concentration limit (11.5%) which will ensure that the system meets both the new requirements and the original system design basis. The new limits were previously evaluated and determined to be acceptable. The amendment will implement the requirement and is acceptable. It is noted that the licensee proposes to delete Storage Tank level alarm setpoint data from the figure. Since there are no Limiting Conditions for Operation or Surveillance Requirements associated with the level alarms such information need not be included on the figure. This is consistent with the guidance of the Standard Technical Specifications (NUREG-0123) and is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in 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 exposures. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: July 5, 1988

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