

July 17, 1991

Docket No. 50-298

Mr. Guy R. Horn
Nuclear Power Group Manager
Nebraska Public Power District
Post Office Box 499
Columbus, Nebraska 68602-0499

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Dear Mr. Horn:

SUBJECT: COOPER NUCLEAR STATION - AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-46 (TAC NO. 80899)

The Commission has issued the enclosed Amendment No. 144 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated July 10, 1991.

The amendment changes the Technical Specifications to revise the setpoint and time delay values for the Emergency Buses Loss of Voltage Relays of Table 3.2.B (page 3). The change corrects an error made when the setpoint and time delay values were added to the TS as part of Amendment No. 43.

Your letter dated July 10, 1991, requested that this amendment be treated as an emergency because insufficient time exists for the Commission's usual 30-day notice without Cooper being required to shutdown due to an inability to satisfy the setting limits as introduced to the TS by Amendment No. 43. A temporary waiver of compliance was issued to cover the period from the discovery of this discrepancy on July 9, 1991, until this emergency TS amendment could be reviewed (on or before July 18, 1991).

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance and Final Determination of No Significant Hazards Consideration and Opportunity for a Hearing will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by

Paul W. O'Connor, Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

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Enclosures:

- Amendment No.144 to License No. DPR-46
- Safety Evaluation

cc w/enclosures:
See next page

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

July 17, 1991

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Nuclear Power Group Manager
Nebraska Public Power District
Post Office Box 499
Columbus, Nebraska 68602-0499

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Sincerely,

William D Reckley
for

Paul W. O'Connor, Project Manager
Project Directorate IV-1
Division of Reactor Projects III, IV, and V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 144 to
License No. DPR-46
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Guy R. Horn
Nuclear Power Group Manager

Cooper Nuclear Station

cc:

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U.S. Nuclear Regulatory Commission
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Lincoln, Nebraska 68509-5007



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

NEBRASKA PUBLIC POWER DISTRICT

DOCKET NO. 50-298

COOPER NUCLEAR STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 144
License No. DPR-46

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Nebraska Public Power District (the licensee) dated July 10, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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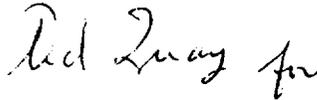
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. DPR-46 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 144, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Martin J. Virgilio, Assistant Director
for Regions IV and V
Division of Reactor Projects, III, IV, and V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 17, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 144

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change.

REMOVE PAGE

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INSERT PAGE

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COOPER NUCLEAR STATION
TABLE 3.2.B (Page 3)
RESIDUAL HEAT REMOVAL SYSTEM (LPCI MODE) CIRCUITRY REQUIREMENTS

Instrument	Instrument I.D. No.	Setting Limit	Minimum Number of Operable Components Per Trip System (1)	Action Required When Component Operability Is Not Assured
RHR Pump Low Flow	RHR-dPIS-125 A & B	≥2500 gpm	1	A
Time Delays	RHR-TDR-K45, 1A&1B	4.25≤T≤5.75 min.	1	A
RHR Pump Start	RHR-TDR-K75A & K70B	4.5≤T≤5.5 Sec.	1	A
Time Delay	RHR-TDR-K75B & K70A	≤.5 sec.	1	A
RHR Heat Exchanger Bypass T.D.	RHR-TDR-K93, A & B	1.8≤T≤2.2 min.	1	B
RHR Crosstie Valve Position	RHR-IMS-8	Valve Not closed	(3)	E
Bus 1A Low Volt. Aux. Relay	27 X 3/1A	Loss of Voltage	1	B
Bus 1B Low Volt. Aux. Relay	27 X 3/1B	Loss of Voltage	1	B
Bus 1F Low Volt. Aux. Relays	27 X 1/1F 27 X 2/1F	Loss of Voltage Loss of Voltage	1 1	B B
Bus 1G Low Volt. Aux. Relays	27 X 1/1G 27 X 2/1G	Loss of Voltage Loss of Voltage	1	B
Pump Discharge Line	CM-PS-266 CM-PS-270	≥5 psig ≥15 psig	(3) (3)	D D
Emergency Buses	27/1F-2, 27/1FA-2	3880V ±52V	2	B
Undervoltage Relays (degraded voltage)	27/1G-2, 27/1GB-2	7.5 second ±.8 sec. time delay	2 1	B B
Emergency Buses Loss of Voltage Relays	27/1F-1, 27/1FA-1, 27/1G-1, 27/1GB-1, 27/ET-1, 27/ET-2	2300V ±5% 0.0 ≤T≤ 5.0 sec. T = Time Delay	1	B
Emergency Buses Under- Voltage Relays Timers	27X7/1F, 27X7/1G,	5 second ±.5 sec.	1	B



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated July 10, 1991, Nebraska Public Power District (the licensee) submitted a request for changes to the Cooper Nuclear Station, Technical Specifications (TS). The requested changes would revise the setpoint and time delay values for the Emergency Buses Loss of Voltage Relays of Table 3.2.B (page 3). The change corrects an error made when the setpoint and time delay values were added to the TS as part of Amendment No. 43.

2.0 EVALUATION

The undervoltage protection for the Cooper Nuclear Station emergency AC buses is provided by two levels of relays. The first level of relays are the emergency buses loss of voltage relays which were included in the original plant design to protect against loss of voltage conditions. The second level of relays were added as a plant modification to improve protection against degraded voltage conditions and were incorporated into the TS by Amendment No. 43. The setpoints and time delays for the loss of voltage relays were also added to the TS by Amendment No. 43.

During a design basis review by the licensee, an inconsistency was discovered associated with the loss of voltage relays' actual setting limits and time delays and those specified in TS Table 3.2.B. The inconsistency apparently resulted from an error in the setting limit which was added to the TS by Amendment No. 43. The actual settings for the loss of voltage relays as installed and calibrated were confirmed to be in agreement with the design basis. To correct the inconsistency between the design basis and the TS, the licensee requested a temporary waiver of compliance and this TS amendment.

The relays used for the loss of voltage protection are inverse time relays which have a variable time delay dependant upon the decrease in voltage. These type of relays are not easily characterized by single setting limit and time delay values which are usually incorporated into the TS. This, in part, resulted in the error which is being corrected by the proposed TS change. The proposed amendment changes the TS setting limit and time delay for the loss of voltage relays from "2900 V (+/- 5%); 5 second (+/- 1 second) delay" to "2300 V (+/- 5%); time delay less than or equal to 5 seconds". The proposed change in combination with the plant surveillance procedures will ensure that the relays are maintained in accordance with the voltage-time curve which was justified by the design basis analysis.

Based upon its review, the staff finds the proposed change to the loss of voltage relay setting limit and time delays in TS Table 3.2.B does maintain the plant within the design basis and is therefore acceptable.

3.0 EMERGENCY CIRCUMSTANCES

In the letter dated July 10, 1991, the licensee requested that this amendment application be treated as an emergency because unless approved, the TS would require a plant shutdown upon the expiration of a temporary waiver of compliance which covers the period from July 9, 1991, through July 18, 1991.

Regarding the timeliness of the licensee's submittal, the discrepancy between the TS setpoint value and the existing plant configuration and design basis was discovered on July 9, 1991, by the licensee during a design review program. Upon discovery, the licensee evaluated the discrepancy, determined operability and prepared a justification for continued operation, requested and received a temporary waiver of compliance from NRR, and requested a TS change on an emergency basis. Accordingly, pursuant to 10 CFR 50.91(a)(5), the Commission has determined that there are emergency circumstances warranting prompt approval by the Commission.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of that facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of any accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a Margin of Safety.

This amendment has been evaluated against the standards in 10 CFR 50.92. It does not involve a significant hazards consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. The change involves a correction to setting limit and time delay values which were incorporated into the TS (Amendment No. 43) but which did not correspond to the plant configuration or supporting design basis. The revised values of 2300 V (+/- 5%) with a delay less than or equal to 5 seconds reflect calibration points on the voltage-time curve which was justified by the plant's design basis. The amendment incorporates the original design basis settings and does not therefore involve a significant increase in the probability or consequences of any accident previously evaluated.

2. Create the possibility of a new different kind of accident from any previously evaluated. The function and operation of the loss of voltage relays are not changed by this proposed amendment. The TS change corrects an error which was incorporated into the TS as part of Amendment No. 43. The change does not involve a modification to plant hardware or plant operation and therefore does not create the possibility of a new or different kind of accident from any previously evaluated.
3. Involve a significant reduction in the margin of safety. The amendment corrects an error in the TS and ensures that the loss of voltage relays operate in accordance with the design basis analysis. The function and performance of the loss of voltage relays are not affected by the change. In combination with the second level degraded voltage relays, the loss of voltage relays continue to provide protection over the entire range of voltage (normal to zero). Since the change is consistent with the design basis and continues to ensure loss of voltage protection, no significant reduction in the margin of safety is involved.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Nebraska State official was notified of the proposed issuance of the amendment. The State official had no comment.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The NRC 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 made a final no significant hazards consideration finding with respect to this amendment. 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.

7.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: W.D. Reckley

Date: July 17, 1991