

August 3, 1988

Docket No. 50-298

Mr. George A. Trevors, Division
Manager - Nuclear Support
Nuclear Power Group
Nebraska Public Power District
Post Office Box 499
Columbus, Nebraska 68601

Dear Mr. Trevors:

SUBJECT: COOPER NUCLEAR STATION - AMENDMENT NO. 124 TO FACILITY
OPERATING LICENSE NO. DPR-46 (TAC NO. 68058)

The Commission has issued the enclosed Amendment No. 124 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The amendment consist of changes to the Technical Specifications in response to your application dated May 3, 1988 (Change Number 58).

The amendment changes the Technical Specifications to revise the setpoints for undervoltage relays.

A copy of our related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's next Bi-weekly Federal Register notice.

Sincerely,

/s/

William O. Long, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 124 to License No. DPR-46
2. Safety Evaluation

cc w/enclosures:

See next page

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JCalvo	ARM/LFMB	OGC-Rockville	DHagan
EJordan	F. Rosa	Plant File	

DOCUMENT NAME: COOPER AMENDMENT TAC 68058

PD4/LA <i>gjn</i>	PD4/PM <i>W</i>	SELB <i>FR</i>	OGC-Rockville	PD4/D <i>MC</i>
PNoonan	WLong:sr	F. Rosa	<i>Batch</i>	JCalvo
07/3/88	07/2/88	07/25/88	07/3/88	07/3/88

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

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2. Safety Evaluation

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See next page

Mr. George A. Trevors
Nebraska Public Power District

Cooper Nuclear Station

cc:

Mr. G. D. Watson, General Counsel
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Columbus, Nebraska 68601

Cooper Nuclear Station
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Lincoln, Nebraska 68509-8922

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Nemaha County Board of Commissioners
Nemaha County Courthouse
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Auburn, Nebraska 68305

Senior Resident Inspector
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Brownville, Nebraska 68321

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
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Division of Radiological Health
Department of Health
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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. 124
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 May 3, 1988, 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, as amended, 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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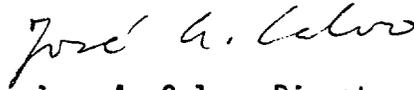
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. DPR-46 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No.124, 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



Jose A. Calvo, Director
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 3, 1988

ATTACHMENT TO LICENSE AMENDMENT NO.124

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 area is indicated by marginal lines.

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-LMS-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 Undervoltage Relays (degraded voltage)	27/1F-2, 27/1FA-2 27/1G-2, 27/1GB-2	3880V ±52V 7.5 second ±.8 sec. time delay	2 2 1	B 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	2900V +5% 5 second +1 sec. 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. 124 TO FACILITY OPERATING LICENSE NO. DPR-46
NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated May 3, 1988 (Change No. 58) 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 to revise undervoltage relay setpoints.

2.0 DISCUSSION AND EVALUATION

Cooper Nuclear Station has two levels of undervoltage protection for each of the two 4160 VAC safety-related buses. The first level was installed during plant construction and has a setpoint of 2900 V \pm 5%. The second level of undervoltage protection was installed in response to a June 3, 1977 staff letter concerning susceptibility of onsite electrical equipment to sustained degraded grid voltage. The second level of undervoltage protection of each electrical division includes two sets of undervoltage relays having contacts in series with a separate timer. The undervoltage relays also incorporate integral timers. The undervoltage relays are set at 3600 V \pm 5% and have a time delay set at 8 sec \pm 2 sec. The actual time delay is inversely affected by the rate of voltage change. The separate timer installed in series with the relay contacts is set at 10 \pm 2 seconds. These present Technical Specifications for the second level undervoltage protection system were approved in Amendment 43. The system design is consistent with Appendix A of ANSI/IEEE Std. 741-1986.

The inverse time characteristic of the second-level undervoltage relays is due to the induction-disk type design. The licensee plans to replace these relays during the 1988 refueling outage with solid state devices. This will permit independent adjustment of the voltage and time delay settings thereby permitting the second level undervoltage protection feature to more closely conform to its design basis requirement. The proposed new undervoltage relay setpoint is 3880 V \pm 52 Volts with a timer setting of 7.5 \pm 0.8 seconds. The setting of the separate timer in series with the relay contacts would be changed to 5 \pm 0.5 seconds. The modification and associated setpoint changes will reduce spurious initiation of the undervoltage protection system.

The modification constitutes direct replacement of existing equipment with similar equipment having improved operating characteristics. The revised Technical Specifications reflect the improved operating character-

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istics and do not represent a reduced margin on safety or relaxation of Limiting Conditions of Operation or Surveillance Requirements. The revised setpoints will improve the functioning of the protective feature and are conservative with respect to the current settings. Based on the above the proposed amendment 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: August 3, 1988

Principal Contributor: W. Long