October 27, 1987

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. 112, TO FACILITY OPERATING LICENSE NO. DPR-46 (TAC NO. 63530)

The Commission has issued the enclosed Amendment No. 112 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. This amendment consists of changes to the Technical Specifications in response to your application dated October 31, 1986, (Change No. 41) modified by your letter dated August 28, 1987.

The amendment changes the Technical Specifications to reflect recent modifications to the drywell pressure and temperature monitoring instruments.

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's 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. 112 to License No. DPR-46
2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION:

Docket File	DHagan	Wanda Jones	OGC-Bethesda	Plant File
NRC PDR	PNoonan (3)	EJordan	EButcher	
Local PDR	WLong	JPartlow	ACRS (10)	
PD4 Reading	JCalvo	ARM/LFMB	TBarnhart (4)	

LTR NAME: COOPER CHANGE 41 9/9
*See previous concurrences:

PD4/LA	PD4/PM*	ICSB*	OGC-Bethesda	PD4/D
PNoonan	WLong	JMauck	RBachmann	JCalvo
10/8/87	9/09/87	10/01/87	10/15/87	10/26/87

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. , TO FACILITY OPERATING LICENSE NO. DPR-46 (TAC NO.)

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. This amendment consists of changes to the Technical Specifications in response to your application dated October 31, 1986, (Change No. 41) modified by your letter dated August 28, 1987.

The amendment changes the Technical Specifications to reflect recent modifications to the drywell pressure and temperature monitoring instruments.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

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. to License No. DPR-46
2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION

Docket File	PNoonan (3)	GPA/PA	FSchroeder
NRC PDR	WLong	TBarnhart (4)	Plant File
Local PDR	OGC-Bethesda	Wanda Jones	
EButcher	JPartlow	ARM/LFMB	
DHagan	ELJordan	ACRS (10)	

LTR NAME: COOPER CHANGE 41 9/9

PD4/LA	PD4/PM	ICSB	PD4/D
PNoonan	WLong	JMauck	JCalvo
/ /87	9/9/87	10/1/87	/ /87

add OGC

Mr. George A. Trevors
Nebraska Public Power District

Cooper Nuclear Station

cc:
Mr. G. D. Watson, General Counsel
Nebraska Public Power District
P. O. Box 499
Columbus, Nebraska 68601

Cooper Nuclear Station
ATTN: Mr. Guy R. Horn, Division
Manager of Nuclear Operations
P. O. Box 98
Brownville, Nebraska 68321

Director
Nebraska Department of Environmental
Control
P. O. Box 94877
State House Station
Lincoln, Nebraska 68509-4877

Mr. William Siebert, Commissioner
Nemaha County Board of Commissioners
Nemaha County Courthouse
Auburn, Nebraska 68305

Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 218
Brownville, Nebraska 68321

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Mr. Harold Borchart, Director
Division of Radiological Health
Department of Health
301 Centennial Mall, South
P. O. Box 95007
Lincoln, Nebraska 68509

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. 112
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 October 31, 1986, modified by your letter dated August 28, 1987, 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 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.

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 Specification

The Technical Specifications contained in Appendix A, as revised through Amendment No. 112, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

José A. Calvo

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: October 27, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 112

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Pages

65
66
80

COOPER NUCLEAR STATION
TABLE 3.2.F
PRIMARY CONTAINMENT SURVEILLANCE INSTRUMENTATION

Instrument	Instrument I.D. No.	Range	Minimum Number of Operable Instrument Channels	Action Required When Minimum Condition Not Satisfied (1)
Reactor Water Level	NBI-LI-85A	-150" to +60"	2	A,B,C
	NBI-LI-85B	-150" to +60"		
Reactor Pressure	RFC-PI-90A	0 - 1200 psig	2	A,B,C
	RFC-PI-90B	0 - 1200 psig		
Drywell Pressure	PC-PR-2A	-5 to 70 psig	2	A,B,C
	PC-PR-2B	-5 to 70 psig		
	PC-PR-1A	0 - 250 psig	2	F
	PC-PR-1B	0 - 250 psig		
Drywell Temperature	PC-TR-503	50 - 170°F	2	A,B,C
	PC-TI-505	50 - 350°F		
Suppression Chamber/Torus Air Temperature	PC-TR-21A	0 - 300°F	2	A,B,C
	PC-TR-23, Det 1 & 2	0 - 400°F		
Suppression Chamber/Torus Water Temperature	PC-TR-24, Det 1a to 1h	0 - 250°F	1 (2)	Note 2
	PC-TR-25, Det 2a to 2h	0 - 250°F		
Suppression Chamber/Torus Water Level	PC-LI-10	(-4' to +6')	2	A,B,C
	PC-LR-11	(-4' to +6')		
	PC-LI-12	-10" to +10"	2	A,B,C,E
	PC-LI-13	-10" to +10"		
	PC-LR-1A	0 - 30'	2	F
	PC-LR-1B	0 - 30'		
Suppression Chamber/Torus Pressure	PC-PR-20	0 - 2 psig	1	B,C
Control Rod Position	N.A.	Indicating Lights	1	A,B,C,D
Neutron Monitoring	N.A.	S.R.M., I.R.M., LPRM 0 - 100% power	1	A,B,C,D

NOTES FOR TABLE 3.2.F

1. The following actions will be taken if the minimum number of operable instrument channels as required are not available.

   A. From and after the date that one of these parameters is reduced to one indication, continued operation is permissible during the succeeding thirty days unless such instrumentation is sooner made operable.

   B. From and after the date that one of these parameters is not indicated in the control room, continued operation is permissible during the succeeding seven days unless such instrumentation is sooner made operable.

   C. If the requirements of A and B above cannot be met, an orderly shutdown shall be initiated within 24 hours.

   D. These surveillance instruments are considered to be redundant to each other.

   E. In the event that both channels are inoperable and indication cannot be restored in six (6) hours, an orderly shutdown shall be initiated and the reactor shall be in Hot Shutdown in six (6) hours and in a Cold Shutdown condition in the following eighteen (18) hours.

   F. From and after the date that one of these parameters is reduced to one indication, either restore the inoperable component(s) to operable status within 30 days of the event, or prepare and submit a Special Report to the Commission outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status. In the event that both channels are inoperable and indication cannot be restored in fourteen (14) days, an orderly shutdown shall be initiated.

2. Each channel contains eight detectors. A channel is considered inoperable if two adjacent detectors are unmonitored by the channel in question.

   A. From and after the date that one channel becomes inoperable, continued operation is permissible during the succeeding seven days unless sooner made operable.

   B. From and after the date that the second channel becomes inoperable, an orderly shutdown shall be initiated within 48 hours unless sooner made operable.

COOPER NUCLEAR STATION
TABLE 4.2.F
PRIMARY CONTAINMENT SURVEILLANCE INSTRUMENTATION
TEST AND CALIBRATION FREQUENCIES

Instrument	Instrument I.D. No.	Calibration Frequency	Instrument Check
Reactor Water Level	NBI-LI-85A	Once/6 Months	Each Shift
	NBI-LI-85B	Once/6 Months	Each Shift
Reactor Pressure	RFC-PI-90A	Once/6 Months	Each Shift
	RFC-PI-90B	Once/6 Months	Each Shift
Drywell Pressure	PC-PR-2A	Once/6 Months	Each Shift
	PC-PR-2B	Once/6 Months	Each Shift
	PC-PR-1A	Once/6 Months	Each Shift
	PC-PR-1B	Once/6 Months	Each Shift
Drywell Temperature	PC-TR-503	Once/6 Months	Each Shift
	PC-TI-505	Once/6 Months	Each Shift
Suppression Chamber/Torus Air Temperature	PC-TR-21A	Once/6 Months	Each Shift
	PC-TR-23, Det 1 & 2	Once/6 Months	Each Shift
Suppression Chamber/Torus Water Temperature	PC-TR-24, Det 1a to 1h	Once/6 Months	Each Shift
	PC-TR-25, Det 2a to 2h	Once/6 Months	Each Shift
Suppression Chamber/Torus Water Level	PC-LI-10	Once/6 Months	Each Shift
	PC-LR-11	Once/6 Months	Each Shift
	PC-LI-12	Once/6 Months	Each Shift
	PC-LI-13	Once/6 Months	Each Shift
	PC-LR-1A	Once/6 Months	Each Shift
	PC-LR-1B	Once/6 Months	Each Shift
Suppression Chamber/Torus Pressure	PC-PR-20	Once/6 Months	Each Shift
Control Rod Position	N.A.	N.A.	Each Shift
Neutron Monitoring (APRM)	N.A.	Once/Week	Each Shift

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 112 TO FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated October 31, 1986, (Change No. 41), 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 Appendix A Technical Specifications to (1) reflect replacement of drywell pressure instruments, (2) indicate that the sixteen Suppression Pool Temperature Monitoring System (SPTMS) instrument channels are divided into two independent trains of eight instruments each, (3) reflect installation of an additional temperature recorder for the torus temperature instruments, and (4) clarify action requirements to be taken in event of inoperable water SPTMS instruments. In a letter dated August 28, 1987, the proposed wording of the Technical Specifications action statement for the SPTMS was revised for further clarification.

2.0 EVALUATION

Change (1) reflects the replacement of PC-PT-512A and PC-PT-512B drywell pressure monitoring instruments with recorders PC-PR-2A and PC-PR-2B. The new instruments have a wider range, indicate in units of PSIG instead of PSIA, and are powered from two divisions instead of one. This modification resolves a Detailed Control Room Design Review (DCRDR) human engineering discrepancy (HED 13SS) identified in the DCRDR and also provides environmentally qualified instruments. The proposed Technical Specifications change is consistent with NUREG-0737 DCRDR requirements and Regulatory Guide 1.97 and is therefore acceptable.

Changes (2) and (3) reflect facility modifications approved as part of the Regulatory Guide 1.97 accident monitoring instrumentation upgrade program and Detailed Control Room Design Review. The SPTMS consists of two independent divisions utilizing eight pairs of sensors. One pair of sensors is located in the vicinity of each of the eight steam quenchers. One sensor in each pair is associated with SPTMS Division I; the other with SPTMS Division II. Previously, the SPTMS was non-divisional sharing a common control room indicator/recorder (PC-TR-24) and power source. The modified system provides improved reliability, and is consistent with the SPTMS requirements of the Mark I Containment Long Term Program and Regulatory Guide 1.97. The proposed Technical Specifications changes reflect these design improvements and are acceptable.

Change (4) clarifies the Limiting Condition for Operation action requirement which applies in event of inoperable components of the SPTMS. The original Technical Specifications for the SPTMS, implemented by Amendment No. 88, state that four instrument channels are required to be operable. It is not stated that at least four operable channels in different parts of the suppression pool are necessary (in order to permit an accurate bulk average temperature calculation). Change (4) requires operability of at least four (no two adjacent) sensors. This ensures capability of determining local and bulk average suppression pool temperatures. The proposed change is therefore acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

This 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. 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 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 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

We have 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.

Principal Contributor: W. Long

Dated: October 27, 1987