DOCKET FILE

Docket No. 50-298 August 12, 1992

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

Dear Mr. Horn:

SUBJECT: COOPER NUCLEAR STATION - AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-46 (TAC NO. M67406)

The Commission has issued the enclosed Amendment No.153 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The amendment consists of changes to the Technical Specifications in response to your application dated June 16, 1988.

The amendment revised the Technical Specifications to clarify the operability requirements of the primary containment oxygen analyzer based on installation of redundant channels in accordance with Regulatory Guide 1.97, and incorporated administrative changes associated with the newly installed redundant oxygen analyzer system.

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

Sincerely,

ORIGINAL SIGNED BY:

Roby B. Bevan, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No.153 to License No. DPR-46
2. Safety Evaluation

cc w/enclosures:
See next page

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DATE	6/1/92	5/21/92	6/30/92	7/[illegible]/92	8/12/92

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

August 12, 1992

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Roby B. Bevan, Project Manager
Project Directorate IV-1
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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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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. 153
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 June 16, 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, 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.

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. 153 , 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

Paul W Johnson

for John T. Larkins, Director
Project Directorate IV-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 12, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 153

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 pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE PAGES	INSERT PAGES
64	64
65	65
66	66
79	79
80	80

COOPER NUCLEAR STATION
TABLE 3.2.E
INSTRUMENTATION THAT MONITORS DRYWELL LEAK DETECTION

Instrument	Instrument I.D. No.	Setting Limit	Minimum Number of Operable Components	Action Required When Component Operability Is Not Assured (2)
Drywell Floor Drain Sump Flow	RW-FT-354	N.A.	1	A
Drywell Equipment Drain Sump Flow	RW-FT-364	N.A.	1	A
Air Sampling System	RMV-RM-4 A,B&C	N.A.	1	A

NOTES FOR TABLE 3.2.E

1. The two (2) flow transmitters, one for the equipment drain sump and the other for the floor drain sump, comprise the basic instrument system.

   The air sampling system is an alternate system to this system.

2. Action

   A. Refer to Specification 3.6.C of this Technical Specification.

Change/Mod/4/4/18/74
Amendment No. 153

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
Primary Containment Oxygen Concentration	PC-AN/CS-H_2/O_2 A	Various	2 (3)	A, B, C
	PC-AN/CS-H_2/O_2 B	Various		

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.

3. During periods when both channels are inoperable, grab samples may be taken to verify primary containment oxygen concentration.

COOPER NUCLEAR STATION
TABLE 4.2.E
MINIMUM TEST AND CALIBRATION FREQUENCY FOR DRYWELL LEAK DETECTION

Item	Item I.D. No.	Function Test Freq.	Calibration Freq.	Instrument Check
Instrument Channel				
1. Equipment Drain Sump Flow	RW-FT-(364)	Once/Month (1)	Once/3 Months	Once/Day
2. Floor Drain Sump Flow	RW-FT-(354)	Once/Month (1)	Once/3 Months	Once/Day
3. Air Sampling System	RMV-RM-4A, B, & C	Once/Month (1)	Once/3 Months	Once/Day

Change/Mod/4/1/4/18/74
Amendment No. 153

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
Primary Containment Oxygen Concentration	PC-AN/CS-H_2/O_2 A	Once/3 Months	Once/Day
	PC-AN/CS-H_2/O_2 B	Once/3 Months	Once/Day

Amendment No. 88,90,91,112, 153

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated June 16, 1988, Nebraska Public Power District (the licensee) submitted a request for changes to the Cooper Nuclear Station (CNS) Technical Specifications (TS). The requested changes would incorporate requirements for the use of redundant channels of oxygen monitoring in the primary containment atmosphere and several administrative changes associated with their installation and use.

2.0 EVALUATION

In the current CNS TS, only one analyzer for measurement of oxygen concentration in the primary containment is specified. To meet the guidance contained in Regulatory Guide 1.97 regarding redundant channels that meet performance standards of range, seismic quality, environmental qualification, electrical separation, and post-accident performance capabilities, new oxygen analyzing instrumentation has been installed. The new instrumentation was installed as part of an integrated H_2/O_2 analyzer system. Each channel of the system consists of an analyzer panel and microprocessor controls, along with the necessary recording equipment and plant process computer outputs. Each channel is powered by a separate division of power.

The change replaces the old oxygen analyzer, having identification number PC-O_2A-512, with two new channels of analyzers, PC-AN/CS-H_2/O_2A and PC-AN/CS-H_2/O_2B. TMI Action Plan Requirements in NUREG-0737 require that the hydrogen/oxygen instrumentation for indication and recording be functioning within 30 minutes of the initiation of safety injection. By letter dated July 21, 1992, the licensee confirmed that this requirement is met. The staff finds that the proposed change is consistent with current regulatory guidance, is appropriate for the intended purpose of measuring oxygen concentration in the primary containment, and is acceptable.

An additional change is to remove the listing of the oxygen analyzer system from Tables 3.2.E and 4.2.E, which list instrumentation that monitors drywell leak detection, and enter it into Tables 3.2.F and 4.2.F, which list instrumentation for primary containment surveillance. The removal of the

oxygen analyzer from Tables 3.2.E and 4.2.E and entry of the new instrumentation into Tables 3.2.F and 4.2.F is appropriate because of the intended function of the oxygen analyzer, and so it is acceptable.

The limiting conditions for operation and corresponding action statements in Table 3.2.F for the oxygen analyzer are consistent with the present TS requirements of Table 3.2.E and Specification 3.6.C. Under current TS requirements, the single channel oxygen analyzer can be inoperable during reactor operation for periods of up to 30 days before an orderly plant shutdown is required. With the new redundant analyzers and their requirements as given in Table 3.2.F, operation is permissible only for up to 7 days with no indication in the control room (i.e., both channels inoperable). During periods when both channels are inoperable, oxygen concentration in primary containment can be measured using containment air grab samples to satisfy Specification 4.7.A.5.a for oxygen monitoring. The surveillance requirements in Table 4.2.F for primary containment oxygen analyzer are identical to those currently required by Table 4.2.E. The changes described are appropriate to properly characterize the function of the new instrumentation and to ensure action that is appropriate to meet safety needs of operability, and are therefore acceptable.

3.0 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.

4.0 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 has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (57 FR 22263). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). The amendment also involves changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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.

5.0 CONCLUSION

Based on the considerations discussed above, the Commission has concluded 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: R. Bevan

Date: August 12, 1992