

February 3, 1989

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. 127 TO FACILITY
OPERATING LICENSE NO. DPR-46 (TAC NO. 65623)

The Commission has issued the enclosed Amendment No. 127 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 10, 1987 as modified by your letters dated March 4 and December 12, 1988 (Change Number 32).

The amendment changes the Technical Specifications relating to the fire protection program.

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/

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

Enclosures:

1. Amendment No. 127 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	C. McCracken	Plant File	

DOCUMENT NAME: COOPER AMENDMENT TAC 65623

*See previous concurrences:

PD4/LA*	PD4/PM <i>Pwol</i>	OGC-Rockville	ECEB*	PD4/D
PNocnan	PO'Connor:sr		CMcCracken	JCalvo
04/07/88	01/26/89	01/28/89	06/03/88	02/03/89

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

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Sincerely,

A handwritten signature in cursive script that reads "Paul W. O'Connor".

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

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Mr. George A. Trevors
Nebraska Public Power District

Cooper Nuclear Station

cc:

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Senior Resident Inspector
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Brownville, Nebraska 68321

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U.S. Nuclear Regulatory Commission
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P. O. Box 95007
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. 127
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 10, 1987 as modified by letter dated March 4, and December 12, 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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PDC


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. 127, 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


for 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: February 3, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 127

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.

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LIMITING CONDITIONS FOR OPERATION

3.14 FIRE DETECTION SYSTEM

APPLICABILITY

Applies to the operational status of the Fire Detection System.

OBJECTIVE

To assure continuous automatic surveillance throughout the Main Plant.

SPECIFICATIONS

- A. The Fire Detection System instrumentation for each fire detection zone shown in Table 3.14 shall be operable.
- B. With one or more of the fire detection instrument(s) shown in Table 3.14 inoperable:
 - 1. Within 1 hour establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, and
 - 2. Restore the inoperable instrument(s) to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the instrument(s) to OPERABLE status.

3.15 FIRE SUPPRESSION WATER SYSTEM

APPLICABILITY

Applies to the availability of water for fire fighting purposes.

OBJECTIVE

To assure a continuous operable water supply for fire fighting systems from 2 fire pumps.

SURVEILLANCE REQUIREMENTS

4.14 FIRE DETECTION SYSTEM

APPLICABILITY

Applies to the operational status of the Fire Detection System.

SPECIFICATIONS

- A. Each detector on Table 3.14 shall be demonstrated operable every 6 months by performance of a channel functional test.
- B. The NFPA Standard 72.D Class A or B supervised circuits associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

4.15 FIRE SUPPRESSION WATER SYSTEM

APPLICABILITY

Applies to the availability of water for fire fighting purposes.

4.15 (cont'd)

- c) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle or full travel, and
 - d) Verifying that each high pressure pump starts (sequentially) to maintain the fire suppression water system pressure \geq 65 psig.
5. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.
6. The fire pump diesel engine shall be demonstrated OPERABLE:
- a) At least once per 31 days by verifying;
 - 1) The fuel storage tank contains at least 250 gallons of fuel, and
 - 2) The diesel starts from ambient conditions and operates for at least 15 minutes.
 - b) At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM-D975-74 for viscosity water content and sediment.
 - c) At least once per 18 months by:
 - 1) Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service, and

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.20 - DELETED

4.20 - DELETED

TABLE 3.14

FIRE DETECTION INSTRUMENTS

	INSTRUMENT ID NO.
1 <u>Reactor Building</u>	
859 & 881 Elev. (Covers RCIC, Core Spray, RHR, and HPCI Pumps)	FD-TD-18-2 FP-TD-18-3 FP-TD-19-2 FP-TD-19-3 FP-TD-20-2 FP-TD-20-3 FP-TD-20-4 FP-TD-20-5 FP-TD-21-2 FP-TD-21-3
903 Elev.	FP-SD-18-1 FP-TD-18-4 FP-SD-19-1 FP-SD-20-1 FP-SD-21-1
931 Elev.	FP-SD-23-1 FP-SD-23-2 FP-SD-23-3 FP-SD-23-4
958 Elev.	FP-SD-24-1 FP-SD-24-2 FP-SD-24-3 FP-SD-24-4 FP-SD-24-5 FP-SD-24-6
976 Elev. Covers Standby Liquid Control Pump and Standby Gas Treatment	FP-SD-26-1 FP-SD-26-2 FP-SD-25-1 FP-SD-25-2 FP-SD-25-3 FP-SD-25-4 FP-TD-25-5
1001 Elev. Also Fuel Storage Area	FP-TD-26-3 FP-TD-26-4 FP-TD-25-6 FP-TD-25-7
<u>Legend</u>	
FP = Fire Protection	H = Halon 1301
TD = Thermal Detector	CO ₂ = Carbon Dioxide
FD = Flame Detector	DG ² = Diesel Generator
SD = Smoke Detector	1st Digit Instr. ID No. = Zone
SW = Service Water	2nd Digit Instr. ID No. = Instr. No.

INSTRUMENT LOCATION

INSTRUMENT ID NO.

8 Safety Related Equipment not in Reactor Building

RHR Service Water Booster Pumps

FP-SD-14-3

Emergency Condensate Storage Tanks

FP-SD-14-1

Service Water Pumps

FP-SD-32-1

FP-SD-32-2

FP-SD-32-3

FP-SD-32-4

FP-FD-32-5

FP-FD-32-6

HSW-SD-H1

HSW-SD-H2

HSW-SD-H3

HSW-SD-H4

HSW-SD-H5

HSW-SD-H6

HSW-TD-H11

HSW-TD-H12

HSW-TD-H13

HSW-TD-H14

HSW-TD-H15

HSW-TD-H16

9 Auxiliary Relay Room & Reactor Protection System Rooms

Auxiliary Relay Room

FP-SD-15-9

FP-SD-15-10

Reactor Protection System Room 1A

FP-SD-15-7

Reactor Protection System Room 1B

FP-SD-15-8

6.2 (cont'd)

- a. Verification of compliance with internal rules, procedures (for example: normal, off-normal, emergency, operating, maintenance, surveillance, test, and radiation control procedures) and applicable license conditions at least once per 24 months.
- b. The training, qualification, and performance of the operating staff at least once per 24 months.
- c. The Emergency Plan and implementing procedures at least once per 12 months.
- d. The Security Plan and implementing procedures at least once per 12 months.
- e. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licensee personnel;
- f. The protection equipment and program implementation at least once per 12 months utilizing either a qualified off-site licensee fire protection engineer(s) or an outside independent fire protection consultant. An outside independent fire protection consultant shall be utilized at least every third year.
- g. Deleted.
- h. The Radiological Environmental Monitoring Program and the Offsite Dose Assessment Manual with their implementing procedures at least once every 24 months.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.127 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, 1987 (Change No. 32) the Nebraska Public Power District requested an amendment to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The proposed amendment would change Technical Specifications for the fire protection program. By letters dated July 15, 1987, and August 2, 1988, the staff advised the licensee that certain proposed changes did not conform to staff criteria and that the proposed amendment should be reconsidered. In letters dated March 4 and December 12, 1988 the licensee revised its application.

2.0 DISCUSSION AND EVALUATION

The proposed amendment would revise the Technical Specifications applicable to the Safety Review and Audit Board (SRAB) auditing requirements. Section 6.2.1.B.7 of the current Technical Specifications specifies periodic audits to be conducted under the cognizance of the SRAB. They include fire protection audits as follows: (1) the facility fire protection program and implementing procedures shall be audited every 24 months, (2) a fire protection physical inspection using either qualified licensee personnel or fire protection consultant personnel shall be conducted every 12 months, and (3) a fire protection inspection and audit by an outside fire protection consultant shall be conducted every 36 months. The proposed amendment would editorially revise 6.2.1.B.7 in a manner which does not alter these requirements but serves to clarify the requirements in a manner consistent with the staff position as defined in Section 6.5.2.8 of NUREG-0123 "Standard Technical Specifications for General Electric Boiling Water Reactors" (STS). In particular, the proposed amendment would clarify that the inspection/audit performed every third year by an outside consultant is similar to and replaces, rather than supplements, the regular 12-month audit performed that year by qualified licensee personnel. The licensee has stated in its application that the proposed revisions are for clarification only and involve no changes in the scope, personnel qualifications, or frequency of the required audits and inspections. The requirements are also consistent with current Standard Review Plan acceptance criteria. The staff thus concludes that the proposed changes are acceptable.

The proposed amendment would revise Section 4.14.B to change the expression "NFPA Code" regarding supervised circuits associated with the fire detector alarms, to "NFPA Standard". This change would correct an editorial error and is acceptable. The same technical specification also refers to "Class B supervised circuits supervision" with the word "supervision" being redundant. The proposed amendment would delete the word "supervision". This also constitutes an editorial correction and is acceptable.

The proposed amendment would revise Section 4.14.B to include Class A supervised circuits in the Surveillance Requirements applicable to fire detection circuits. This change would reflect a recent modification in which a Class A circuit was installed for the Service Water Pump Room as an Appendix R modification. The staff position, as stated in NUREG-0123 Section 4.3.7.10.2, is that all supervised fire detection circuits associated with required fire detectors shall be subject to surveillance requirements. This change is therefore acceptable.

The proposed amendment would modify Section 4.15 to delete requirements no longer applicable. The existing 4.15 requires a diesel fire pump fuel storage inventory of 150 gallons. A footnote states that the requirement becomes 250 gallons when the clean water fire protection system becomes operable. The clean water fire protection is now operable and the 250 gallon limitation applies. The amendment would change the "150" to "250", and delete the footnote. This change is editorial and reflects requirements established in Amendment 82, and therefore is acceptable.

The proposed amendment would delete Sections 3.20 and 4.20, Limiting Conditions for Operation and Surveillance Requirements for the Yard Fire Hydrant and Hydrant Hose House. These requirements were added to the facility Technical Specifications as Amendment 66. At that time, the system configuration consisted of two electric motor driven fire pumps and one diesel engine driven fire pump, all located in the Service Water Pump Room which also contains the four Service Water Pumps. As a result of concern about the possibility of common mode failure of the seven pumps due to fire in the Service Water Pump Room, Sections 3.20 and 4.20 were added to provide additional fire protection to that space. Since that time, one of the two motor driven fire pumps and the diesel driven fire pump have been relocated to a separate pumphouse and a Halon fire suppression system has been installed in the Service Water Pump Room. With the present configuration, the concerns which led to Sections 3.20 and 4.20 have been eliminated. The elimination of 3.20 and 4.20 is therefore acceptable.

The proposed amendment would establish operability and surveillance requirements for an additional smoke detector located in the Auxiliary Relay Room. The need for the additional smoke detector was determined during an Appendix R audit (Ref: Inspection Report 50-298/86-15). Table 3.14 of the Technical Specifications would be modified to include the additional detector as instrument FP-SD-15-10. (Associated with this change would be the addition of "SW-Service Water" to the legend for Table 3.14). The additional detector and associated Technical

Specifications are required to bring the facility into conformance with 10 CFR Part 50, Appendix R, fire protection requirements and is therefore 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: February 3, 1989

Principal Contributor: W. Long