

FEBRUARY 24 1978

Docket No. 50-298

Nebraska Public Power District  
ATTN: Mr. J. M. Pilant, Director  
Licensing & Quality Assurance  
P. O. Box 499  
Columbus, Nebraska 68601

Gentlemen:

The enclosed fire protection Technical Specifications are being issued as Amendment No. *92* to Facility Operating License No. DPR-46 for the Cooper Nuclear Station (CNS).

By letter dated November 29, 1977, we forwarded to you recommended interim Technical Specifications for fire protection at CNS. These specifications revised, where necessary, the Technical Specifications proposed in your July 20, 1977 response to our June 24, 1977 letter. You responded to our November 29 letter with a letter dated December 19, 1977, in which you identified two areas of change to be incorporated into the fire protection Technical Specifications for CNS and in which you took exception to the NRC staff position on the minimum size of the site fire brigade.

Following additional discussions with your staff, we have modified the proposed Technical Specification changes in our November 29, 1977 letter relating to certain fire detection instruments to more accurately describe installed equipment and the Staff's related surveillance requirements. Because the proposed Technical Specification changes, as modified, continue to be supported by the conclusions reached in our previously issued (November 29, 1977) Safety Evaluation of the fire protection systems at CNS, we have included these changes in this license amendment.

In order to achieve expeditious implementation of the fire protection Technical Specifications, Specification 6.1.3.G is being issued at this time with the minimum number of on-site fire brigade members specified as three. This number is less than the minimum number given in the generic staff position, "Minimum Fire Brigade Shift Size", which was attached to the Safety Evaluation Report issued

OFFICE →						
SURNAME →						
DATE →						

Nebraska Public Power District - 2 -

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with our November 29, 1977 letter, and is greater than your proposed brigade size of two. This change to your proposal was discussed with and agreed to by your staff. We are evaluating justifications for smaller brigade size, and when the evaluation is completed, the minimum brigade size at CNS will be increased if we do not find the smaller brigade size to be acceptable.

In order to provide a period of time to modify procedures to conform with the details of the enclosed interim Technical Specifications and to complete required personnel training where necessary, the amendment becomes effective 30 days after the date of issuance.

A copy of the Notice of Issuance of these fire protection Technical Specifications is enclosed. The related Safety Evaluation was enclosed with our November 29, 1977 letter.

Sincerely,



George Lear, Chief  
 Operating Reactors Branch #3  
 Division of Operating Reactors

Enclosures:

1. Amendment No. <sup>42</sup> to DPR-46
2. Notice

cc w/enclosures: See next page

OFFICE	ORB#3:DOR	ORB#2:DOR	OT/SEP: <del>nm</del>	ORB#1:DOR 2/2/78 TWambach	OELD 2/1/78	ORB#3:DOR 2/24/78
SURNAME	VRooney	RDiggs	MFletcher:nm			GLeaf
DATE	2/1/78	2/17/78	2/17/78	2/2/78	2/1/78	2/24/78

OELD  
 L. Breiter  
 78/12/80  
 2/22/78

ORB#2  
 for DAVIS 2/17/78

February 24, 1978

cc w/enclosures:

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Mr. William Siebert, Commissioner  
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Kansas City, Missouri 64108

\*(w/cv of NPPD filing dtd. 12/19/77)



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. 42  
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 20, 1977, as amended by letter dated December 19, 1977, 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 License No. DPR-46 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 42, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 30 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George Leary, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: February 24, 1978

ATTACHMENT TO LICENSE AMENDMENT NO.42

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following pages of the Technical Specifications contained in Appendix A of the above indicated license with the attached pages bearing the same numbers (except as otherwise indicated). Changed areas on the revised pages are reflected by a marginal line.

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LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

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 pursuant to Specification 6.7.2 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 at least 2 of the 3 fire pumps.

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 Code 72.D Class B supervised circuits supervision 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.

## 3.15 (cont'd)

SPECIFICATIONS

- A. The fire suppression water system shall be OPERABLE with:
1. Two fire pumps, each with a capacity of 2000 gpm, with their discharge aligned to the fire suppression header.
  2. An OPERABLE flow path capable of taking suction from the Missouri River and transferring the water through distribution piping with OPERABLE sectionalizing control or isolation valves to the yard hydrant valves and the front valve ahead of the water flow alarm device on each sprinkler, hose standpipe or spray system riser.
- B. If the requirement of 3.15 A cannot be met, restore the inoperable equipment to OPERABLE status within 7 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.7.2 within the next 30 days outlining the plans and procedures to be used to provide for the loss of redundancy in this system.
- C. With the fire suppression system inoperable:
1. Establish a backup fire suppression water system within 24 hours, and
  2. Submit a Special Report in accordance with Specification 6.7.2;
    - a) By telephone within 24 hours, and
    - b) In writing no later than the first working day following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

## 4.15 (cont'd)

SPECIFICATIONS

- A. The Fire Suppression Water Supply System shall be demonstrated operable:
1. At least once per 31 days by starting each pump on a staggered start-up basis and operating it for:
    - a) A minimum of 15 minutes for a diesel engine-driven fire pump, and
    - b) A minimum of 7 minutes for an electrical motor-driven fire pump.
  2. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
  3. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
  4. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:
    - a) Verifying that each automatic valve in the flow path actuates to its correct position on a test signal,
    - b) Verifying that each pump develops at least 2000 gpm at 125 psi,

## 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 150 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

## 3.15 (cont'd)

## 4.15 (cont'd)

- 2) Verifying the diesel starts from ambient conditions on the auto-start signal and operates for  $> 15$  minutes while loaded with the fire pump.

7. The fire pump diesel starting 24-volt battery bank and charger shall be demonstrated OPERABLE:

- a) At least once per 7 days by verifying that:
  - 1) The electrolyte level of each battery is above the plates, and
  - 2) The overall battery voltage  $\geq 24$  volts.
- b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery.
- c. At least once per 18 months by verifying that:
  - 1) The batteries, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration, and
  - 2) The battery-to-battery and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material.

3.16 SPRAY AND/OR SPRINKLER SYSTEMAPPLICABILITY

Applies to the availability of automatic Fire Protection to Cable Spreading Room - 918 Ft. Elev. of Control Building.

OBJECTIVE

To assure automatic Fire Protection to the Cable Spreading Room - 918 Ft. Elev. of Control Building

4.16 SPRAY AND/OR SPRINKLER SYSTEMAPPLICABILITY

Applies to the availability of automatic Fire Protection to Cable Spreading Room - 918 Ft. Elev. of Control Building.

3.16 (cont'd)

SPECIFICATIONS

- A. The Automatic Preaction Sprinkler System protecting the Cable Spreading Room shall be operable.
- B. If the requirement of 3.16.A cannot be met, establish a continuous fire watch with backup fire suppression equipment for the unprotected area within 1 hour; restore the system to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.7.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

3.17 CARBON DIOXIDE SYSTEMAPPLICABILITY

Applies to the operational status of the High Pressure Carbon Dioxide Extinguishing System protecting the Diesel Generator Rooms.

OBJECTIVE

To assure continuous Automatic Fire Protection for the Diesel Generator Rooms.

SPECIFICATIONS

- A. The High Pressure Carbon Dioxide Extinguishing System protecting the Diesel Generator Rooms shall be operable.

4.16 (cont'd)

SPECIFICATIONS

- A. The Automatic Preaction Sprinkler System protecting the Cable Spreading Room shall be demonstrated to be operable by:
1. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
  2. At least once per 18 months:
    - a) By performing a system functional test which includes simulated automatic actuation of the system, and
      - 1) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and
      - 2) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.
    - b. By inspection of the spray headers to verify their integrity.

4.17 CARBON DIOXIDE SYSTEMAPPLICABILITY

Applies to the operational status of the High Pressure Carbon Dioxide Extinguishing System protecting the Diesel Generator Rooms.

SPECIFICATIONS

- A. The High Pressure Carbon Dioxide Extinguishing System protecting the Diesel Generator Rooms shall be demonstrated operable by:

## 3.17 (cont'd)

B. If the requirement of 3.17.A cannot be met:

1. Establish a continuous fire watch with backup fire suppression equipment for the unprotected area(s) within 1 hour; restore the system to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.7.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

3.18 FIRE HOSE STATIONSAPPLICABILITY

Applies to the operational status of the Fire Hose Stations in the Control and Reactor Buildings.

OBJECTIVE

To assure continuous manual fire fighting capability provided by existing Fire Hose Stations.

SPECIFICATIONS

- A. The Fire Hose Stations shown in Table 3.18 shall be operable.
- B. If the requirement of 3.18.A cannot be met, route an additional hose to the area protected by the inoperable Fire Hose Station from an operable Fire Hose Station of equivalent capacity within 1 hour.

## 4.17 (cont'd)

1. At least once per 6 months, the High Pressure Carbon Dioxide storage cylinders should be weighed.
2. At least once per 18 months by verifying the system valves, alarms, and associated ventilation motor interlocks and dampers actuate to a simulated automatic and manual actuation signal. A brief air flow test ("Puff Test") shall be made to verify flow from each nozzle.

4.18 FIRE HOSE STATIONSAPPLICABILITY

Applies to the operational status of the Fire Hose Stations in the Control and Reactor Buildings.

SPECIFICATIONS

- A. The Fire Hose Stations in the Control Building and Reactor Building shall be demonstrated to be operable by:
  1. At least once per 31 days by:
    - a) Visual inspection to assure all required equipment is at the station.
  2. At least once per 18 months by:
    - a) Removing the hose for inspection and re-racking, and
    - b) Replacement of all degraded gaskets in couplings.
  3. At least once per 3 years by:
    - a) Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage, and

3.19 FIRE BARRIER PENETRATION FIRE SEALSAPPLICABILITY

Applies to the integrity of all Fire Barrier and Fire Wall Penetration Fire Seals.

OBJECTIVE

To assure the integrity of all Fire Barrier and Fire Wall Penetration Fire Seals.

SPECIFICATIONS

- A. Fire Barrier and Fire Wall Penetration Fire Seals integrity shall be maintained.
- B. If the requirement of 3.19.A cannot be met, a continuous fire watch shall be established on at least 1 side of the penetration within 1 hour.

- b) Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station.

4.19 FIRE BARRIER PENETRATION FIRE SEALSAPPLICABILITY

Applies to the integrity of all Fire Barrier and Fire Wall Penetration Fire Seals.

SPECIFICATIONS

- A. Fire Barrier and Fire Wall Penetration Fire Seals shall be verified to be functional by:
  - 1. At least every 18 months visually inspect each side of each Fire Barrier and Fire Wall Penetration Seal (where possible), and
  - 2. A visual inspection of a Fire Barrier and Fire Wall Penetration Seal prior to declaring a penetration fire barrier functional following repairs or maintenance.

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

Legend

FP = Fire Protection  
TD = Thermal Detector  
FD = Flame Detector  
SD = Smoke Detector

CO<sub>2</sub> = Carbon Dioxide  
DG = Diesel Generator  
1st Digit Instr. ID No. = Zone  
2nd Digit Instr. ID No. = Instr. No.

INSTRUMENT LOCATION	INSTRUMENT ID NO.
2 <u>Control Room</u>	FP-SD-17-1 FP-SD-17-2 FP-SD-17-3
3 <u>Cable Spreading Room</u>	FP-SD-16-1 FP-SD-16-2 FP-SD-16-3 FP-SD-16-4 FP-SD-16-5 FP-SD-16-6
4 <u>Switchgear Rooms</u> DC Switchgear Rooms	FP-SD-15-2 FP-SD-15-3
Critical Switchgear Room	FP-SD-22-1 FP-SD-22-2
5 <u>Station Battery Rooms</u>	FP-SD-15-1 FP-SD-15-4
6 <u>Diesel Generator Rooms</u>	FP-SD-10-1 FP-SD-10-2 FP-SD-10-3 FP-SD-10-4 CO2-SD-DG-1A CO2-SD-DG-1B
7 <u>Diesel Fuel Storage Rooms</u>	CO2-TD-DG-1A CO2-TD-DG-1B
8 <u>Safety Related Pumps not in Reactor Building</u>	
RHR Service Water Booster Pumps	FP-SD-14-3
Emergency Condensate Storage Tanks	FP-SD-14-1
Fire Water Pumps & Service Water Pumps	FP-FD-32-1 FP-FD-32-2
9 <u>Auxiliary Relay Room &amp; Reactor Protection System Rooms</u>	
Auxiliary Relay Room	FP-SD-15-9
Reactor Protection System Room 1A	FP-SD-15-7
Reactor Protection System Room 1B	FP-SD-15-8

Table 3-18  
FIRE HOSE STATIONS

<u>Location</u>	<u>Identification #</u>	<u>Hose Size</u>
1. <u>Reactor Building</u>		
859 & 881 Elevation	HV-31	1 1/2"
	HV-32	1 1/2"
	HV-33	1 1/2"
903 Elevation	HV-35	1 1/2"
	HV-36	1 1/2"
	HV-38	1 1/2"
	HV-34	1 1/2"
931 Elevation	HV-37	1 1/2"
958 Elevation	HV-39	1 1/2"
	HV-40	1 1/2"
	HV-42	1 1/2"
976 Elevation	HV-41	1 1/2"
	HV-46	1 1/2"
1001 Elevation	HV-43	1 1/2"
	HV-44	1 1/2"
	HV-45	1 1/2"
2. <u>Cable Spreading Room</u>	HV-18	1 1/2"
3. <u>Computer &amp; Control Rooms</u>	HV-19	1 1/2"
4. <u>Switchgear Rooms &amp; Station Battery Room</u>		
D.C. Switchgear Room and Station Battery Rooms	HV-17	1 1/2"
5. <u>Safety Related Pumps not in Reactor Building</u>		
RHR Service Water Booster Pumps	HV-16	1 1/2"
6. <u>Fire Water Pumps &amp; Service Water Pumps</u>		
	HT-1 (hydrant)	2 - 2 1/2"

### 3.14-3.19/4.14-4.19 BASES

#### 3.14/4.14 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is returned to service.

#### 3.15-3.18/4.15-4.18 FIRE SUPPRESSION SYSTEMS

THE OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO<sub>2</sub> and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the affected equipment can be restored to service.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

#### 3.19/4.19 FIRE BARRIER PENETRATION SEALS

The functional integrity of the fire barrier penetration seals ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The fire barrier penetration seals are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the seals are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected seal until the seal is restored to functional status.

6.0 ADMINISTRATIVE CONTROLS

6.1 Organization

6.1.1 The Station Superintendent shall have the over-all full-time onsite responsibility for the safe operation of the Cooper Nuclear Station. During periods when the Station Superintendent is unavailable, he may delegate his responsibility to the Assistant to Station Superintendent or, in his absence, to one of the Department Supervisors.

6.1.2 The portion of the Nebraska Public Power District management which relates to the operation of this station is shown in Figure 6.1.1.

6.1.3 The organization for conduct of operation of the station is shown in Fig. 6.1.2. The shift complement at the station shall at all times meet the following requirements. Note: Higher grade licensed operators may take the place of lower grade licensed or unlicensed operators.

A. A licensed senior reactor operator (SRO) shall be present at the station at all times when there is any fuel in the reactor.

B. A licensed reactor operator shall be in the control room at all times when there is any fuel in the reactor.

C. Two licensed reactor operators shall be in the control room during all startup, shutdown and other periods involving significant planned control rod manipulations. A licensed SRO shall either be in the Control Room or immediately available to the Control Room during such periods.

D. A licensed senior reactor operator (SRO) with no other concurrent duties shall be directly in charge of any refueling operation, or alteration of the reactor core.

A licensed reactor operator (RO) with no other concurrent duties shall be directly in charge of operations involving the handling of irradiated fuel other than refueling or reactor core alteration operations.

E. An individual who has been trained and qualified in health physics techniques shall be on site at all times that fuel is on site.

F. Minimum crew size during reactor operation shall consist of three licensed reactor operators (one of whom shall be a licensed SRO) and two unlicensed operators. Minimum crew size during reactor cold shutdown conditions shall consist of two licensed reactor operators (one of whom shall be a licensed SRO) and one unlicensed operator.

In the event that any member of a minimum shift crew is absent or incapacitated due to illness or injury a qualified replacement shall be designated to report on-site within two hours.

G. A fire brigade of at least 3 members shall be maintained at all times. This excludes the 3 members of the minimum shift crew necessary for safe shutdowns, and other personnel required for other essential functions during a fire emergency.

6.1.4 The minimum qualifications, training, replacement training, and retraining of plant personnel at the time of fuel loading or appointment to the active position shall meet the requirements as described in the American National Standards Institute N18.1-1971, "Selection and Training of Personnel for Nuclear Power Plants". The Assistant to Station Superintendent qualifications shall comply with Section 4.2 of ANSI-N18.1-1971. The Chemistry and Health Physics Supervisor shall meet or exceed the qualifications of Regulatory Guide 1.8, Sept. 1975; personnel qualification equivalency as stated in the Regulatory Guide may be proposed in selected cases. The minimum frequency of the retraining program shall be every two years. The training program shall be under the direction of a designated member of the plant staff.

- A. A training program for the fire brigade will be maintained under the direction of the plant training coordinator and shall meet or exceed the requirements of Section 27 of the NFPA Code 1976, except for Fire Brigade training sessions which shall be held at least quarterly.

The training program requirements will be provided by a qualified fire protection engineer, thru the Risk Manager.

6.2 (cont'd.)

tary material reviewed; copies of the minutes shall be forwarded to the Chairman of the NPPD Safety Review and Audit Board and the Director of Power Supply within one month.

7. Procedures:

Written administrative procedures for Committee operation shall be prepared and maintained describing the method for submission and content of presentations to the committee, provisions for use of subcommittees, review and approval by members of written Committee evaluations and recommendations, dissemination of minutes, and such other matters as may be appropriate.

B. NPPD Safety Review and Audit Board.

The board must: verify that operation of the plant is consistent with company policy and rules, approved operating procedures and operating license provisions; review safety related plant changes, proposed tests and procedures; verify that unusual events are promptly investigated and corrected in a manner which reduces the probability of recurrence of such events; and detect trends which may not be apparent to a day-to-day observer.

Audits of selected aspects of plant operation shall be performed with a frequency commensurate with their safety significance and in such a manner as to assure that an audit of all nuclear safety related activities is completed within a period of two years. Periodic review of the audit programs should be performed by the Board at least twice a year to assure that such audits are being accomplished in accordance with requirements of Technical Specifications. The audits shall be performed in accordance with appropriate written instructions or procedures and should include verification of compliance with internal rules, procedures (for example, normal, off-normal, emergency, operating, maintenance, surveillance, test and radiation control procedures and the emergency and security plans), regulations involving nuclear safety and operating license provisions; training, qualification and performance of operating staff; and corrective actions following abnormal occurrences or unusual events. A representative portion of procedures and records of the activities performed during the audit period shall be audited and, in addition, observations of performance of operating and maintenance activities shall be included. Written reports of such audits shall be reviewed at a scheduled meeting of the Board and by appropriate members of management including those having responsibility in the area audited. Follow-up action, including reaudit of deficient areas, shall be taken when indicated.

In addition to the above, the Safety Review and Audit Board will audit the facility fire protection and its implementing procedures at least once every 24 months.

6.2 (cont'd.)

- b. Approve safety related changes or modifications to station systems and equipment, provided such changes or modifications do not involve an unreviewed safety question by the NRC and do not require changes in the Operating License.

6. Records:

Minutes shall be recorded for all meetings of the NPPD Safety Review and Audit Board and shall identify all documentary material reviewed. Copies of the minutes shall be forwarded to the General Manager and the Station Superintendent, and such others as the Chairman may designate within one month of the meeting.

7. Procedures:

Written administrative procedures for Board operation shall be prepared and maintained that contain:

- a. Subjects within the purview of the group.
- b. Responsibility and authority of the group including responsibility to identify problems and to recommend solutions, and authority to verify implementation of approved actions.
- c. Mechanisms for convening meetings.
- d. Provisions for any use of subgroups.
- e. Authority to obtain access to the nuclear power plant operating record files and operating personnel to perform the audit function.
- f. Requirements for distribution of reports and minutes prepared by the group to others in the NPPD organization.
- g. Identification of the management position to which the Board reports.
- h. Provisions for assuring that the Committee is kept informed on a timely basis of matters within its purview.
- i. Provision for a formal approval of the minutes.

8. Fire Protection Inspection:

- a. An annual fire protection and loss prevention inspection will be performed utilizing either qualified off-site licensee personnel or an outside fire protection consultant.
- b. An inspection and audit by an outside qualified fire protection consultant shall be performed at least once per 36 months.

6.3 Station Operating Procedures

- 6.3.1 Station personnel shall be provided detailed written procedures to be used for operation and maintenance of system components and systems that could have an effect on nuclear safety.
- 6.3.2 Written integrated and system procedures and instructions including applicable check off lists shall be provided and adhered to for the following:
- A. Normal startup, operation, shutdown and fuel handling operations of the station including all systems and components involving nuclear safety.
  - B. Actions to be taken to correct specific and foreseen potential or actual malfunctions of safety related systems or components including responses to alarms, primary system leaks and abnormal reactivity changes.
  - C. Emergency conditions involving possible or actual releases of radioactive materials.
  - D. Implementing procedures of the Security Plan and the Emergency Plan.
  - E. Implementing procedures for the fire protection program.
- 6.3.3 The following maintenance and test procedures will be provided to satisfy routine inspection, preventive maintenance programs, and operating license requirements.
- A. Routine testing of Engineered Safeguards and equipment as required by the facility License and the Technical Specifications.
  - B. Routine testing or standby and redundant equipment.
  - C. Preventive or corrective maintenance of plant equipment and systems that could have an effect on nuclear safety.
  - D. Calibration and preventive maintenance of instrumentation that could affect the nuclear safety of the plant.
  - E. Special testing of equipment for proposed changes to operational procedures or proposed system design changes.
- 6.3.4 Radiation control procedures shall be maintained and made available to all station personnel. These procedures shall show permissible radiation exposure, and shall be consistent with the requirements of 10 CFR 20.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-298

NEBRASKA PUBLIC POWER DISTRICT

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 42 to Facility Operating License No. DPR-46, issued to the Nebraska Public Power District (the Licensee), which revised the Technical Specifications for operation of the Cooper Nuclear Station (the facility) located in Nemaha County, Nebraska. The amendment is effective 30 days after its date of issuance.

The amendment incorporates fire protection Technical Specifications on the existing fire protection equipment and adds administrative controls related to fire protection at the facility. This action is being taken pending completion of the Commission's overall fire protection review of the facility.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated July 20, 1977, as amended by letter dated December 19, 1977, (2) the Commission's letters to the licensee dated June 24, 1976 and November 29, 1977, (3) Amendment No. 42 to License No. DPR-46, and (4) the Commission's related Safety Evaluation issued as an enclosure to the Commission's November 29, 1977 letter.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the Auburn Public Library, 118 - 15th Street, Auburn, Nebraska 68305. A single copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland FEBRUARY 24 1978

FOR THE NUCLEAR REGULATORY COMMISSION



Richard J. Clark, Acting Chief  
Operating Reactors Branch #3  
Division of Operating Reactors