



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

February 16, 2012

Mr. Brian J. O'Grady  
Vice President-Nuclear and CNO  
Nebraska Public Power District  
72676 648A Avenue  
Brownville, NE 68321

**SUBJECT: COOPER NUCLEAR STATION - ISSUANCE OF AMENDMENT RE:  
ADMINISTRATIVE REVISIONS TO TECHNICAL SPECIFICATIONS AND TO  
REMOVE AN EXPIRED ONE-TIME EXCEPTION TO THE 5-YEAR TEST  
FREQUENCY FOR A SINGLE SAFETY VALVE (TAC NO. ME5960)**

Dear Mr. O'Grady:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 241 to Renewed Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated March 26, 2011.

The amendment revises several TS pages to correct formatting errors and typographical errors, including pages within TS 3.1.3, "Control Rod OPERABILITY," TS 3.1.4, "Control Rod Scram Times," TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," TS 3.3.5.1, "Emergency Core Cooling System (ECCS) Instrumentation," TS 3.3.6.1, "Primary Containment Isolation Instrumentation," TS 3.3.6.2, "Secondary Containment Isolation Instrumentation," TS 3.3.8.1, "Loss of Power (LOP) Instrumentation," TS 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring," TS 3.5.1, "ECCS – Operating," TS 3.5.2, "ECCS – Shutdown," TS 3.6.1.1, "Primary Containment," TS 3.6.4.3, "Standby Gas Treatment (SGT) System," TS 3.7.4, "Control Room Emergency Filter (CREF) System," TS 3.8.1, "AC [Alternating Current] Sources – Operating," TS 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air," TS 5.2, "Organization," and TS 5.5, "Programs and Manuals". In addition, the amendment revises TS 5.5.6, "Inservice Testing Program," to remove an expired one-time exception of the 5-year frequency requirement for setpoint testing of safety valve MSRV-70ARV.

B. O'Grady

- 2 -

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Lynnea E. Wilkins'.

Lynnea E. Wilkins, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures:

1. Amendment No. 241 to DPR-46
2. Safety Evaluation

cc w/encls: Distribution via Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

NEBRASKA PUBLIC POWER DISTRICT

DOCKET NO. 50-298

COOPER NUCLEAR STATION

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 241  
License No. DPR-46

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Nebraska Public Power District (the licensee), dated March 26, 2011, 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.

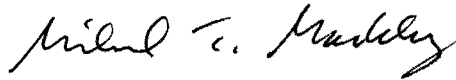
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-46 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 241, 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 and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License No. DPR-46  
and Technical Specifications

Date of Issuance: February 16, 2012

ATTACHMENT TO LICENSE AMENDMENT NO. 241

RENEWED FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following pages of the Renewed Facility Operating License No. DPR-46 and Appendix A Technical Specifications with the enclosed revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating License

REMOVE

INSERT

-3-

-3-

Technical Specifications

REMOVE

INSERT

3.1-9

3.1-9

3.1-12

3.1-12

3.1-13

3.1-13

3.3-4

3.3-4

3.3-36

3.3-36

3.3-51

3.3-51

3.3-57

3.3-57

3.3-65

3.3-65

3.3-68

3.3-68

3.5-6

3.5-6

3.5-10

3.5-10

3.6-2

3.6-2

3.6-40

3.6-40

3.7-9

3.7-9

3.8-3

3.8-3

3.8-13

3.8-13

5.0-2

5.0-2

5.0-6

5.0-6

5.0-9

5.0-9

5.0-10

5.0-10

5.0-12

5.0-12

- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2419 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 241, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Cooper Nuclear Station Safeguards Plan," submitted by letter dated May 17, 2006.

NPPD shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The NPPD CSP was approved by License Amendment No. 238.

(4) Fire Protection

The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Cooper Nuclear Station (CNS) Updated Safety Analysis Report and as approved in the Safety Evaluations dated November 29, 1977; May 23, 1979; November 21, 1980; April 29, 1983; April 16, 1984; June 1, 1984; January 3, 1985; August 21, 1985; April 10, 1986; September 9, 1986; November 7, 1988; February 3, 1989; August 15, 1995; and July 31, 1998, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

## 1

1

### 3.1 REACTIVITY CONTROL SYSTEMS

#### 3.1.4 Control Rod Scram Times

- LCO 3.1.4
- a. No more than 10 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and
  - b. No more than 2 OPERABLE control rods that are "slow" shall occupy adjacent locations.

APPLICABILITY: MODES 1 and 2.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

#### SURVEILLANCE REQUIREMENTS

##### NOTE

During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

SURVEILLANCE	FREQUENCY
SR 3.1.4.1      Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq 800$ psig.	Prior to exceeding 40% RTP after each reactor shutdown $\geq 120$ days

(continued)



SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.2	Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq 800$ psig.	200 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq 800$ psig.	<p>Prior to exceeding 40% RTP after fuel movement within the affected core cell</p> <p>AND</p> <p>Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.1.5	Verify the source range monitor (SRM) and intermediate range monitor (IRM) channels overlap.	Prior to withdrawing SRMs from the fully inserted position
SR 3.3.1.1.6	<p>-----NOTE----- Only required to be met during entry into MODE 2 from MODE 1. -----</p> <p>Verify the IRM and APRM channels overlap.</p>	7 days
SR 3.3.1.1.7	Adjust the channel to conform to a calibrated flow signal.	31 days
SR 3.3.1.1.8	Calibrate the local power range monitors.	1000 MWD/T average core exposure
SR 3.3.1.1.9	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.1.1.10	<p>-----NOTES----- 1. Neutron detectors and recirculation loop flow transmitters are excluded.  2. For Function 2.a, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. -----</p> <p>Perform CHANNEL CALIBRATION.</p>	184 days

(continued)

## SURVEILLANCE REQUIREMENTS

### NOTES

1. Refer to Table 3.3.5.1-1 to determine which SRs apply for each ECCS Function.
2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 3.c and 3.f; and (b) for up to 6 hours for Functions other than 3.c and 3.f provided the associated Function or the redundant Function maintains ECCS initiation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.5.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.5.1.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.5.1.3	Perform CHANNEL CALIBRATION.	92 days
SR 3.3.5.1.4	Perform CHANNEL CALIBRATION.	18 months
SR 3.3.5.1.5	Perform LOGIC SYSTEM FUNCTIONAL TEST.	18 months

Primary Containment Isolation Instrumentation  
3.3.6.1

Table 3.3.6.1-1 (page 1 of 3)  
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Main Steam Line Isolation					
a. Reactor Vessel Water Level - Low Low Low (Level 1)	1,2,3	2	D	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ -113 inches
b. Main Steam Line Pressure - Low	1	2	E	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6	≥ 835 psig
c. Main Steam Line Flow - High	1,2,3	2 per MSL	D	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 142.7% rated steam flow
d. Condenser Vacuum - Low	1, 2(a), 3(a)	2	D	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6	≥ 8 inches Hg vacuum
e. Main Steam Tunnel Temperature - High	1,2,3	2 per location	D	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 195°F
2. Primary Containment Isolation					
a. Reactor Vessel Water Level - Low (Level 3)	1,2,3	2	G	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ 3 inches
b. Drywell Pressure - High	1,2,3	2	G	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 1.84 psig
c. Reactor Building Ventilation Exhaust Plenum Radiation- High	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 49 mR/hr
d. Main Steam Line Radiation - High	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5 SR 3.3.6.1.6	≤ 3 times full power background
e. Reactor Vessel Water Level -Low Low Low (Level 1)	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ -113 inches

(continued)

(a) With any turbine stop valve not closed.

Secondary Containment Isolation Instrumentation  
3.3.6.2

Table 3.3.6.2-1 (page 1 of 1)  
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level - Low Low (Level 2)	1,2,3, (a)	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	$\geq$ - 42 inches
2. Drywell Pressure - High	1,2,3	2	SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	$\leq$ 1.84 psig
3. Reactor Building Ventilation Exhaust Plenum Radiation - High	1,2,3, (a),(b)	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	$\leq$ 49 mR/hr

(a) During operations with a potential for draining the reactor vessel.

(b) During movement of recently irradiated fuel assemblies in secondary containment.

## SURVEILLANCE REQUIREMENTS

### NOTES

1. Refer to Table 3.3.8.1-1 to determine which SRs apply for each LOP Function.
2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 2 hours provided the associated Function maintains DG initiation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.8.1.1	Perform CHANNEL FUNCTIONAL TEST.	31 days
SR 3.3.8.1.2	Perform CHANNEL CALIBRATION.	18 months
SR 3.3.8.1.3	Perform LOGIC SYSTEM FUNCTIONAL TEST.	18 months

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met in MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies.	D.1 Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.8.2.1	Perform CHANNEL CALIBRATION. The Allowable Values shall be: <ul style="list-style-type: none"> <li>a. Overvoltage <math>\leq 131</math> V with time delay set to <math>\leq 3.8</math> seconds.</li> <li>b. Undervoltage <math>\geq 109</math> V, with time delay set to <math>\leq 3.8</math> seconds.</li> <li>c. Underfrequency <math>\geq 57.2</math> Hz, with time delay set to <math>\leq 3.8</math> seconds.</li> </ul>	18 months
SR 3.3.8.2.2	Perform a system functional test.	18 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.9</p> <p>-----NOTES-----</p> <ol style="list-style-type: none"> <li>For HPCI only, not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</li> <li>Vessel injection/spray may be excluded.</li> </ol> <p>-----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>18 months</p>
<p>SR 3.5.1.10</p> <p>-----NOTE-----</p> <p>Valve actuation may be excluded.</p> <p>-----</p> <p>Verify the ADS actuates on an actual or simulated automatic initiation signal.</p>	<p>18 months</p>
<p>SR 3.5.1.11</p> <p>-----NOTE-----</p> <p>Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</p> <p>-----</p> <p>Verify each ADS valve opens when manually actuated.</p>	<p>18 months</p>



SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE				FREQUENCY
SR 3.5.2.4	Verify each required ECCS pump develops the specified flow rate against a system head corresponding to the specified reactor pressure.			In accordance with the Inservice Testing Program
		NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF	
	<u>SYSTEM</u>	<u>FLOW RATE</u>	<u>PRESSURE OF</u>	
	CS	≥ 4720 gpm	1 ≥ 113 psig	
	LPCI	≥ 7700 gpm	1 ≥ 20 psig	
SR 3.5.2.5	-----NOTE-----			18 months
	Vessel injection/spray may be excluded.			
	Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.			

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.6.1.1.1	Perform required visual examinations and leakage rate testing except for primary containment air lock testing, in accordance with the Primary Containment Leakage Rate Testing Program.	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.1.2	Verify drywell to suppression chamber bypass leakage is equivalent to a hole < 1.0 inch in diameter.	<p>18 months</p> <p><u>AND</u></p> <p>-----NOTE----- Only required after two consecutive tests fail and continues until two consecutive tests pass -----</p> <p>9 months</p>

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued)	E.2 Initiate action to suspend OPDRVs.	Immediately

#### SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for $\geq 10$ continuous hours with heaters operating.	31 days
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal.	18 months
SR 3.6.4.3.4	Verify the SGT units cross tie damper is in the correct position, and each SGT room air supply check valve and SGT dilution air shutoff valve can be opened.	18 months

1

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.3.1 Determine OPERABLE DG is not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
	B.3.2 Perform SR 3.8.1.2 for OPERABLE DG.	24 hours
	<u>AND</u>	
	B.4 Restore DG to OPERABLE status.	7 days
		<u>AND</u>
		14 days from discovery of failure to meet LCO
C. Two offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when the redundant required feature(s) are inoperable.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	C.2 Restore one offsite circuit to OPERABLE status.	24 hours

(continued)

### 3.8 ELECTRICAL POWER SYSTEMS

#### 3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

LCO 3.8.3      The stored diesel fuel oil, lube oil, and starting air subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY:    When associated DG is required to be OPERABLE.

#### ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each DG, except for Conditions A, C, and D.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Fuel oil level < 49,500 gal and > 42,800 gal in storage tanks.	A.1 Restore fuel oil level to within limits.	48 hours
B. One or more DGs with lube oil inventory < 504 gal and > 432 gal.	B.1 Restore lube oil inventory to within limits.	48 hours
C. Stored fuel oil total particulates not within limit.	C.1 Restore stored fuel oil total particulates to within limit.	7 days

(continued)

## 5.0 ADMINISTRATIVE CONTROLS

### 5.2 Organization

---

#### 5.2.1 Onsite and Offsite Organizations

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear power plant.

- a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements, including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications, shall be documented in the USAR.
- b. The plant manager shall be responsible for overall safe operation of the plant and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.
- c. The corporate officer with direct responsibility for the plant shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.
- d. The individuals who train the operating staff, carry out radiological protection functions, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

#### 5.2.2 Unit Staff

The unit staff organization shall include the following:

- a. A non-licensed operator shall be assigned when the reactor contains fuel and two additional non-licensed operators shall be assigned when the reactor is operating in MODES 1, 2, or 3.

(continued)

## 5.0 ADMINISTRATIVE CONTROLS

### 5.5 Programs and Manuals

---

The following programs shall be established, implemented and maintained.

#### 5.5.1 Offsite Dose Assessment Manual (ODAM)

- a. The ODA~~M~~ shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the radiological environmental monitoring program; and
- b. The ODA~~M~~ shall also contain the radioactive effluent controls and radiological environmental monitoring activities, and descriptions of the information that should be included in the Annual Radiological Environmental Operating and Radioactive Effluent Release reports required by Specification 5.6.2 and Specification 5.6.3.
- c. Licensee initiated changes to the ODA~~M~~:
  1. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:
    - a. sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and
    - b. a determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and do not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;
  2. Shall become effective after review and acceptance by the Station Operations Review Committee (SORC) and the approval of the plant manager; and
  3. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODA~~M~~ as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODA~~M~~ was made. Each change shall be identified by

(continued)



## 5.5 Programs and Manuals

---

### 5.5.4 Radioactive Effluent Controls Program (continued)

- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary shall be limited to the following:
  - 1. For noble gases: less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
  - 2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days: less than or equal to a dose rate of 1500 mrem/yr to any organ;
- h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from the unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released from the unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- j. Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

### 5.5.5 Component Cyclic or Transient Limit

This program provides controls to track the USAR Section III-3.5, cyclic and transient occurrences to ensure that components are maintained within the design limits.

(continued)

---

## 5.5 Programs and Manuals (continued)

### 5.5.6 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 pumps and valves:

- a. Testing Frequencies applicable to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code) and applicable Addenda are as follows:

<u>ASME OM Code and applicable Addenda terminology for inservice testing activities</u>	<u>Required Frequencies for performing inservice testing activities</u>
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of SR 3.0.2 are applicable to the above required Frequencies and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities;
- c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and
- d. Nothing in the ASME OM Code shall be construed to supersede the requirements of any TS.

(continued)

## 5.5 Programs and Manuals

### 5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

- c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, Section C.6.b shows the methyl iodide penetration less than or equal to the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C (86°F) and the relative humidity specified below.

	<u>ESF Ventilation System</u>	
	<u>Penetration:</u> (%)	<u>Relative Humidity:</u> (%)
SGT System	2.5	70
Control Room Emergency Filter System	2.5	95

- d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, the prefilters, and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified as follows:

<u>ESF Ventilation System</u>	<u>Delta P (inches Wg)</u>	<u>Flowrate (cfm)</u>
SGT System	< 6	1602 to 1958
Control Room Emergency Filter System	< 6	810 to 990

(continued)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 241 TO

RENEWED FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By application dated March 26, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML110900167), Nebraska Public Power District (the licensee), submitted a license amendment request (LAR) in which it requested changes to the Technical Specifications (TSs) for Cooper Nuclear Station (Cooper).

The amendment would revise several TS pages to correct formatting errors and typographical errors, including pages within TS 3.1.3, "Control Rod OPERABILITY," TS 3.1.4, "Control Rod Scram Times," TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," TS 3.3.5.1, "Emergency Core Cooling System (ECCS) Instrumentation," TS 3.3.6.1, "Primary Containment Isolation Instrumentation," TS 3.3.6.2, "Secondary Containment Isolation Instrumentation," TS 3.3.8.1, "Loss of Power (LOP) Instrumentation," TS 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring," TS 3.5.1, "ECCS – Operating," TS 3.5.2, "ECCS – Shutdown," TS 3.6.1.1, "Primary Containment," TS 3.6.4.3, "Standby Gas Treatment (SGT) System," TS 3.7.4, "Control Room Emergency Filter (CREF) System," TS 3.8.1, "AC [Alternating Current] Sources – Operating," TS 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air," TS 5.2, "Organization," and TS 5.5, "Programs and Manuals". In addition, the amendment would revise TS 5.5.6, "Inservice Testing Program," to remove an expired one-time exception of the 5-year frequency requirement for setpoint testing of safety valve MSRV-70ARV.

2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. The TSs ensure the operational capability of structures, systems, and components that are required to protect the health and safety of the public. The NRC's regulatory requirements related to the content of the TSs are contained in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.36, "Technical specifications," which requires that the TSs include items in the following specific categories: (1) safety limits,

limiting safety systems settings, and limiting control settings; (2) limiting conditions for operations; (3) surveillance requirements; (4) design features; and (5) administrative controls.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Proposed Changes

By letter dated March 26, 2011, the licensee requested following typographical errors and administrative clarifications to the Cooper TSs:

TS Section 3.1.3, Control Rod Operability, page 3.1-9, by capitalizing the word "Actions" in the header of the Actions table.

TS Section 3.1.4, Control Rod Scram Times, page 3.1-12, by adding the word "(continued)" to the bottom of the Surveillance Requirements table.

TS Section 3.1.4, Control Rod Scram Times, page 3.1-13, by adding the word "(continued)" to the header of the Surveillance Requirements table.

TS Section 3.3.1.1, RPS Instrumentation, page 3.3-4, by adding the word "(continued)" to the bottom of the Surveillance Requirements table.

TS Section 3.3.5.1, ECCS Instrumentation, page 3.3-36, by formatting the footer with the Amendment number in the right margin.

TS Section 3.3.6.1, Primary Containment Isolation Instrumentation, page 3.3-51, by formatting the footer with the Amendment number in the right margin.

TS Section 3.3.6.2, Secondary Containment Isolation Instrumentation, page 3.3-57, by formatting the footer with the Amendment number in the right margin.

TS Section 3.3.8.1, LOP Instrumentation, page 3.3-65, by formatting the footer with the Amendment number in the right margin.

TS Section 3.3.8.2, RPS Electric Power Monitoring, page 3.3-68, by adding the words "ACTIONS (continued)" to the header of the Actions table, and by formatting the footer with the Amendment number in the right margin.

TS Section 3.5.1, ECCS - Operating, page 3.5-6, by formatting the footer with the Amendment number in the right margin.

TS Section 3.5.2, ECCS - Shutdown, page 3.5-10, by formatting the footer with the Amendment number in the right margin.

TS Section 3.6.1.1, Primary Containment, page 3.6-2, by formatting the footer with the Amendment number in the right margin.

TS Section 3.6.4.3, SGT System, page 3.6-40, by formatting the footer with the Amendment number in the right margin.

TS Section 3.7.4, CREF System, page 3.7-9, by removing the word "(continued)" from the bottom of the Actions table.

TS Section 3.8.1, AC Sources - Operating, page 3.8-3, by capitalizing the word "Actions" in the header of the Actions table and formatting the footer with the Amendment number in the right margin.

TS Section 3.8.3, Diesel Fuel Oil, Lube Oil, and Starting Air, page 3.8-13, by formatting the footer with the Amendment number in the right margin.

TS Section 5.2, Organization, page 5.0-2, by adding the word "(continued)" to the bottom of the page and correcting double and single line format.

TS Section 5.5, Programs and Manuals, page 5.0-6, by adding the word "(continued)" to the bottom of the page and correcting double and single line format.

TS Section 5.5, Programs and Manuals, page 5.0-9, by adding the word "(continued)" to the bottom of the page and correcting double and single line format.

TS Section 5.5, Programs and Manuals, page 5.0-10, by removing paragraph b.1 of Section 5.5.6, the One-Time exception, as the 90 days has expired.

TS Section 5.5, Programs and Manuals, page 5.0-12, by adding a space after the "C" in "30°C(86 °F)".

## 3.2 NRC Staff Evaluation

### TS 3.1.3

TS 3.1.3, page 3.1-9, would be modified by changing "Actions" to "ACTIONS" in the header of the Actions table. The NRC staff has reviewed the proposed change to TS 3.1.3, page 3.1-9 and concludes that it corrects a typographical error and, therefore, is acceptable.

### TS 3.1.4 and TS 3.3.1.1

TS 3.1.4, page 3.1-12 and TS 3.3.1.1, page 3.3-4 would be modified by adding the word "(continued)" to the bottom of the Surveillance Requirements table. The NRC staff has reviewed the proposed changes to TS 3.1.4, page 3.1-12 and TS 3.3.1.1, page 3.3-4 and concludes that it corrects a formatting error and, therefore, is acceptable.

### TS 3.1.4

TS 3.1.4, page 3.1-13 would be modified by adding the word "(continued)" to the header of the Surveillance Requirements table. The NRC staff has reviewed the proposed changes to TS 3.1.4, page 3.1-13 and concludes that it corrects a formatting error and, therefore, is acceptable.

TS 3.3.5.1, TS 3.3.6.1, TS 3.3.6.2, TS 3.3.8.1, TS 3.5.1, TS 3.5.2, TS 3.6.1.1, TS 3.6.4.3, and TS 3.8.3

TS 3.3.5.1, page 3.3-36; TS 3.3.6.1, page 3.3-51; TS 3.3.6.2, page 3.3-57; TS 3.3.8.1, page 3.3-65; TS 3.5.1, page 3.5-6; TS 3.5.2, page 3.5-10; TS 3.6.1.1, page 3.6-2; TS 3.6.4.3, page 3.6-40; and TS 3.8.3, page 3.8-13 would be modified by formatting the footer with the Amendment number in the right margin. The NRC staff has reviewed the proposed changes to TS 3.3.5.1, page 3.3-36; TS 3.3.6.1, page 3.3-51; TS 3.3.6.2, page 3.3-57; TS 3.3.8.1, page 3.3-65; TS 3.5.1, page 3.5-6; TS 3.5.2, page 3.5-10; TS 3.6.1.1, page 3.6-2; TS 3.6.4.3, page 3.6-40; and TS 3.8.3, page 3.8-13 and concludes that it corrects a formatting error and, therefore, is acceptable.

TS 3.3.8.2

TS 3.3.8.2, page 3.3-68 would be modified by adding the words "ACTIONS (continued)" to the header of the Actions table, and by formatting the footer with the Amendment number in the right margin. The NRC staff has reviewed the proposed changes to TS 3.3.8.2, page 3.3-68 and concludes that it corrects a typographical error and, therefore, is acceptable.

TS 3.7.4

TS 3.7.4, page 3.7-9 would be modified by removing the word "(continued)" from the bottom of the Actions table. The NRC staff has reviewed the proposed changes to TS 3.7.4, page 3.7-9 and concludes that it corrects a typographical error and, therefore, is acceptable.

TS 3.8.1

TS 3.8.1, page 3.8-3 would be modified by changing "Actions" to "ACTIONS" in the header of the Actions table and formatting the footer with the Amendment number in the right margin. The NRC staff has reviewed the proposed changes to TS 3.8.1, page 3.8-3 and concludes that it corrects a formatting error and, therefore, is acceptable.

TS 5.2

TS 5.2, page 5.0-2 would be modified by adding the word "(continued)" to the bottom of the page and correcting double and single line format. The NRC staff has reviewed the proposed changes to TS 5.2, page 5.0-2 and concludes that it corrects a formatting error and, therefore, is acceptable.

TS 5.5

TS 5.5, pages 5.0-6 and 5.0-9 would be modified by adding the word "(continued)" to the bottom of the page and correcting double and single line format. The NRC staff has reviewed the proposed changes to TS 5.5, pages 5.0-6 and 5.0-9 and concludes that it corrects a formatting error and, therefore, is acceptable.

TS 5.5, page 5.0-10 would be modified by removing paragraph b.1 of Section 5.5.6, the One-Time exception, as the 90 days has expired. The NRC staff has reviewed the proposed changes to TS 5.5, page 5.0-10 and concludes that it is administrative in nature and, therefore, is acceptable.

TS 5.5, page 5.0-12, would be revised by adding a space after the "C" in "30°C(86 °F)". The NRC staff has reviewed the proposed changes to TS 5.5, page 5.0-12 and concludes that it corrects a typographical error and, therefore, is acceptable.

#### 4.0 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 comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

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 published in the *Federal Register* on November 1, 2011 (76 FR 67489). The amendment changes the format of the license or otherwise makes editorial, corrective, or other minor revisions. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10)(v). 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.

#### 6.0 CONCLUSION

The Commission 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, (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: L. Wilkins

Date: February 16, 2012



B. O'Grady

- 2 -

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

Sincerely,

/RA/

Lynnea E. Wilkins, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures:

1. Amendment No. 241 to DPR-46
2. Safety Evaluation

cc w/encls: Distribution via Listserv

DISTRIBUTION:

PUBLIC

LPLIV r/f

RidsAcrsAcnw\_MailCTR Resource

RidsNrrDorlDpr Resource

RidsNrrDorlLpl4 Resource

RidsNrrDssSnpb Resource

RidsNrrDssStsb Resource

RidsNrrLAJBurkhardt Resource

RidsNrrPMCooper Resource

RidsOgcRp Resource

RidsRgn4MailCenter Resource

**ADAMS Accession No. ML120130205**

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NRR/DSS/STSB/BC	NRR/D E/EPTB/BC
NAME	LWilkins	JBurkhardt	RElliott	AMcMurtray
DATE	1/24/12	1/24/12	1/25/12	1/27/12
OFFICE	OGC NLO	NRR/LPL4/BC	NRR/LPL4/PM	
NAME	LWoodall	MMarkley	LWilkins	
DATE	2/2/12	2/16/12	2/16/12	

OFFICIAL RECORD COPY