

December 4, 2007,

Mr. Stewart B. Minahan
Vice President-Nuclear and CNO
Nebraska Public Power District
72676 648A Avenue
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - ISSUANCE OF AMENDMENT RE: ONE-TIME
EXCEPTION TO THE 5-YEAR TEST FREQUENCY FOR A SINGLE SAFETY
VALVE (TAC NO. MD6580)

Dear Mr. Minahan:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 228 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 August 16, 2007, as supplemented by letter dated November 5, 2007.

The amendment would revise Technical Specification 5.5.6, "Inservice Testing Program," to allow a one-time extension of the 5-year frequency requirement for setpoint testing of safety valve MS-RV-70ARV.

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/

Carl F. Lyon, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures: 1. Amendment No. 228 to DPR-46
2. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession Nos.: Pkg ML073060030, Amdt/License ML073060036, TS Pgs ML073060038 *SE dated **Previously concurred

OFFICE	DORL/LPL4/PM	DORL/LPL4/LA	DCI/CPTB/BC	DIRS/ITSB/BC	OGC - NLO w/comments	DORL/LPL4/BC
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OFFICIAL RECORD COPY

Cooper Nuclear Station

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NEBRASKA PUBLIC POWER DISTRICT

DOCKET NO. 50-298

COOPER NUCLEAR STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 228
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 August 16, 2007, as supplemented by letter dated November 5, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. DPR-46 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 228, 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 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Thomas G. Hiltz, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: December 4, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 228

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following pages of the 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.

Facility Operating License

REMOVE

3

INSERT

3

Technical Specifications

REMOVE

5.0-10

5.0-11

INSERT

5.0-10

5.0-11

- (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 2381 megawatts (thermal).

- (2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. [228](#), 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.

- (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.

Amendment No. 228
Revised by letter dated August 9, 2007

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 228 TO

FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

By application dated August 16, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072350122), as supplemented by letter dated November 5, 2007 (ADAMS Accession No. ML073170193), Nebraska Public Power District (the licensee), requested changes to the Technical Specifications (TSs) for Cooper Nuclear Station (CNS).

The proposed amendment would revise CNS TS Section 5.5.6, "Inservice Testing Program," to allow a one-time 90-day extension to the American Society of Mechanical Engineers (ASME), Code for Operation and Maintenance of Nuclear Power Plants (OM Code) 5-year test interval for CNS safety valve (SV) MS-RV-70ARV, from March 10, 2008, until June 8, 2008.

As set forth in the application, the proposed amendment is related to setpoint testing of safety relief valves (SRVs) and SVs, as required by Surveillance Requirement (SR) 3.4.3.1 in the TSs. SR 3.4.3.1 requires verifying the safety function lift setpoints of the SRVs and SVs. The frequency of SR 3.4.3.1 is specified as "In accordance with the IST [inservice testing] program." Setpoint testing can only be conducted when the plant is shut down and the interval for testing is 5 years.

The current 5-year test frequency for setpoint testing for SV MS-RV-70ARV will expire on March 10, 2008. However, the next refueling outage for CNS is scheduled to start in April 2008. Thus, as more fully described below, the licensee has requested a 90-day extension in order to perform the next setpoint test while CNS is in a refueling outage.

The supplement dated November 5, 2007, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on September 25, 2007 (72 FR 54476).

Specifically, the licensee proposes to add TS 5.5.6.b.1, as follows:

1. One-time Exception: Setpoint testing of safety valve MS-RV-70ARV, as required by ASME OM Code Mandatory Appendix I, paragraph I-1320, may be delayed until start of Cycle 24 refueling outage, but no later than June 8, 2008 (90 days from expiration of the 5-year interval on March 10, 2008).

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.36 requires that each license authorizing operation of a production or utilization facility include technical specifications. In particular, SRs, as set forth in 10 CFR 50.36(c)(3), are a type of TS that relate to testing, calibration or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

Paragraph (f) of 10 CFR Section 50.55a (10 CFR 50.55a(f)), "Inservice Testing Requirements," requires, in part, that ASME Class 1, 2, and 3 components must meet the requirements of the ASME Code. Paragraph 50.55a(f)(5)(ii) of 10 CFR requires that, if a revised inservice test (IST) program for a facility conflicts with the TS for that facility, the licensee shall apply to the Commission for amendment of the TS to conform the TS to the revised program. The licensee is required to submit the application, as specified in 10 CFR 50.4, at least 6 months before the start of the period during which the provisions become applicable.

NPPD requested to revise TS 5.5.6.b to allow a one-time 90-day extension to the ASME OM Code 5-year lift setpoint test interval for SV MS-RV-70ARV, from March 10, 2008, until June 8, 2008.

The NRC's findings with respect to authorizing the TS amendment are given below.

3.0 TECHNICAL EVALUATION FOR AMENDMENT TO TS 5.5.6

The SVs provide overpressure protection for the reactor coolant pressure boundary. TS SR 3.4.3.1 requires that SV lift setpoints be verified in accordance with the IST program. The 2001 Edition through 2003 Addenda of the ASME OM Code is the Code of Record for the CNS IST program. Mandatory Appendix I, Section I-1320(a), "Test Frequencies, Class 1 Pressure Relief Valves," of the ASME OM Code requires that Class 1 pressure relief valves be lift setpoint tested at least once every 5 years.

The licensee has proposed a 90-day extension to the 5-year lift setpoint test interval specified by the ASME OM Code for MS-RV-70ARV.

The test interval for SV MS-RV-70ARV will expire on March 10, 2008, and the licensee is proposing to extend the test interval up to 90 days until June 8, 2008. The upcoming refueling outage was originally scheduled to start in March 2008, but this date was later changed to April 2008. The extension of the ASME OM Code 5-year test interval would only be one month if the outage starts as currently scheduled.

Without this TS amendment, CNS would have to be shut down solely to test SV MS-RV-70ARV. Testing the valve prior to the upcoming refueling outage scheduled for April 2008 would result in an unnecessary plant shutdown or an extension of a forced outage, unnecessary challenges to safety systems, and unnecessary cycling of equipment.

The NRC staff has reviewed the licensee's basis for relief to determine if it is acceptable to extend the lift setpoint test interval for MS-RV-70ARV beyond the allowable 5-year interval specified in the ASME OM Code. The test interval for MS-RV-70ARV would be extended up to 63 months on a one-time basis.

Lift setpoint test history provided by the licensee for MS-RV-70ARV dating back to 1997 shows that the SV consistently passed the TS and ASME OM Code as-found lift setpoint acceptance criterion of ± 3 percent of name-plate test pressure. In several instances, as-found lift setpoint tests were in a negative, or conservative, direction. The licensee stated that MS-RV-70ARV was refurbished prior to installation in the unit. Refurbishment generally requires that components be inspected for wear and defects, and that critical dimensions be measured during the inspection. Components are either reworked to within the specified tolerance or replaced if found to be worn or outside of specified tolerances.

The NRC staff finds that the proposal to extend the lift setpoint test interval for MS-RV-70ARV up to 90 days beyond the ASME OM Code 5-year test requirement is acceptable. The additional time beyond that required by the ASME OM Code should not impair the valve's operational readiness, based on the following:

- Although the ASME OM Code does not require that SVs be routinely refurbished, refurbishment provides reasonable assurance that setpoint drift will be minimized.
- Past performance demonstrates that MS-RV-70ARV successfully passed the ASME OM Code and TS as-found lift setpoint acceptance criterion of ± 3 percent. This supports the CNS ASME overpressure analysis that assumes that the SVs open to relieve pressure at the upper ASME limit of 3 percent of the SV name-plate set pressure.
- Setpoint drift percentages indicate that, in general, setpoints tend to drift downward; not upward. From an overpressure protection standpoint, a setpoint drift in the downward direction is conservative because the valve would tend to open sooner than required.

The proposed change conforms with 10 CFR 50.36(c)(3). Therefore, the proposed change to TS 5.5.6, allowing a one-time 90-day extension from March 10, 2008, until June 8, 2008, to the ASME OM Code 5-year lift setpoint interval for MS-RV-70ARV 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 amendment changes an inspection or surveillance requirement. 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 September 25, 2007 (72 FR 54476). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

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: S. Tingen

Date: December 4 , 2007