



**Nebraska Public Power District**

*"Always there when you need us"*

54.17

NLS2008071  
September 24, 2008

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Subject: License Renewal Application  
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this letter is for the Nebraska Public Power District (NPPD) to apply for renewal of the operating license of Cooper Nuclear Station (CNS) pursuant to 10 CFR 51 and 10 CFR 54. Renewal of the CNS operating license will extend the licenses for an additional 20 years beyond the current expiration date. With renewal, the CNS operating license would be extended from midnight on January 18, 2014 to midnight on January 18, 2034. This application also applies to renewal of the source, special nuclear, and by-product materials licenses that are combined in the facility operating license.

The enclosed License Renewal Application (LRA) and related Appendices contain the information required by 10 CFR 54 for the contents of an application. Appendix B to the LRA describes the Aging Management Programs and activities (including one-time inspections) that will be credited for maintaining structures, systems, and components able to perform their intended function during the period of extended operation.

As required by 10 CFR 54.21(b), current licensing basis changes which have a material effect on the content of this application, including the Updated Safety Analysis Report Supplement (Appendix A), will be identified at least annually while the application is under Nuclear Regulatory Commission (NRC) review and at least three months prior to the scheduled completion of the NRC review.

This application is submitted in accordance with 10 CFR 2 Subpart A, 10 CFR 50.4, and 10 CFR 50.30. NPPD hereby submits the original (plus 80 CDs) of the application pursuant to 10 CFR 50.4(b), 10 CFR 51.53(c), and 10 CFR 54.17(a).

Should you have any questions concerning this submittal, please contact David Bremer, License Renewal Project Manager, at (402) 825-5673.

A136  
NRC

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 24 Sept 08  
(Date)

Sincerely,



Stewart B. Minahan  
Vice President – Nuclear and  
Chief Nuclear Officer

/wv

Enclosure

cc: Regional Administrator w/ enclosure (CD)  
USNRC – Region IV

Cooper Project Manager w/ enclosure (CD)  
USNRC – NRR Project Directorate IV-1

Senior Resident Inspector w/ enclosure (CD)  
USNRC – CNS

Nebraska Health and Human Services w/ enclosure (CD)  
Department of Regulation and Licensure

NPG Distribution w/o enclosure

CNS Records w/ enclosure (CD)

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©

Correspondence Number: NLS2008071

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
Implement the Aboveground Steel Tanks Program. [LRA Section B.1.1]	NLS2008071-01	January 18, 2014
<p>Enhance the Bolting Integrity Program to include guidance from EPRI NP-5769 and EPRI TR-104213 for material selection and testing, bolting preload control, ISI, plant operation and maintenance, and evaluation of the structural integrity of bolted joints.</p> <p>Enhance the program to clarify that actual yield strength is used in selecting materials for low susceptibility to SCC, to clarify the prohibition on use of lubricants containing MoS<sub>2</sub> for bolting at CNS, and to specify that proper gasket compression will be visually verified following assembly.</p> <p>Enhance the program to include guidance from EPRI NP-5769 and EPRI TR-104213 for replacement of non-Class1 bolting and disposition of degraded structural bolting. [LRA Section B.1.2]</p>	NLS2008071-02	January 18, 2014
Implement the Buried Piping and Tanks Inspection Program. [LRA Section B.1.3]	NLS2008071-03	January 18, 2014
Enhance the BWR Vessel Internals Program to include actions to replace the plugs in the core plate bypass holes based on their qualified life. [LRA Section B.1.9]	NLS2008071-04	January 18, 2014

<p>Enhance the Containment Inservice Inspection Program to add examination of required accessible areas using a visual examination method and surface areas not accessible on the side requiring augmented examination to be examined using an ultrasonic thickness measurement method in accordance with IWE-2500(b).</p> <p>Enhance the program to document material loss in a local area exceeding 10% of the nominal containment wall thickness or material loss in a local area projected to exceed 10% of the nominal containment wall thickness before the next examination in accordance with IWE-3511.3 for volumetric inspections. [LRA Section B.1.10]</p>	NLS2008071-05	January 18, 2014
<p>Enhance the Diesel Fuel Monitoring Program to include the use of ASTM Standard D4057 for sampling of the diesel fire pump fuel oil storage tank.</p> <p>Enhance the Diesel Fuel Monitoring Program to include periodic visual inspections and cleaning of the diesel fuel oil day tanks, the diesel fuel oil storage tanks, and the diesel fire pump fuel oil storage tank.</p> <p>Enhance the program to include periodic multilevel sampling of the diesel fuel oil day tanks and the diesel fire pump fuel oil storage tank and to include periodic visual inspections as well as ultrasonic bottom surface thickness measurement of the diesel fuel oil day tanks, the diesel fuel oil storage tanks, and the diesel fire pump fuel oil storage tank.</p> <p>Enhance the program to provide the acceptance criterion of <math>\leq 10</math> mg/l for the determination of particulates in the diesel fire pump fuel oil storage tank.</p> <p>Enhance the program to specify acceptance criterion for UT thickness measurements of the bottom surfaces of the diesel fuel oil day tanks, the diesel fuel oil storage tanks, and the diesel fire pump fuel oil storage tank. [LRA Section B.1.12]</p>	NLS2008071-06	January 18, 2014

<p>Enhance the External Surfaces Monitoring Program to clarify that periodic inspections of systems in scope and subject to aging management review for license renewal in accordance with 10 CFR 54.4(a)(1) and (a)(3) will be performed. Inspections shall include areas surrounding the subject systems to identify hazards to those systems. Inspections of nearby systems that could impact the subject systems will include SSCs that are in scope and subject to aging management review for license renewal in accordance with 10 CFR 54.4(a)(2). [LRA Section B.1.14]</p>	NLS2008071-07	January 18, 2014
<p>Consideration of the effect of the reactor water environment will be accomplished through implementation of one or more of the following options for the feedwater nozzles, core spray nozzles and RHR pipe transition.</p> <p>(1) Update the fatigue usage calculations using refined fatigue analyses to determine valid CUFs less than 1.0 when accounting for the effects of reactor water environment. This includes applying the appropriate Fen factors to valid CUFs determined using an NRC-approved version of the ASME code or NRC-approved alternative (e.g., NRC-approved code case).</p> <p>(2) Repair or replace the affected locations before exceeding a CUF of 1.0.</p> <p>The CNS Fatigue Monitoring Program will be enhanced to require the recording of each transient associated with the actuation of a safety/relief valve (SRV). [LRA Section B.1.15]</p>	NLS2008071-08	January 18, 2014

Enhance the Fire Protection Program to explicitly state that the diesel fire pump engine sub-systems (including the fuel supply line) shall be observed while the engine is running. Acceptance criteria will be revised to verify that the diesel engine does not exhibit signs of degradation while running, such as excessive fuel oil, lube oil, or exhaust gas leakage.

Enhance the program to specify that diesel fire pump engine carbon steel exhaust components are inspected for evidence of corrosion or cracking at least once every five years.

Enhance the program to require visual inspections of fire damper framing to check for signs of degradation.

Enhance the program to require visual inspections of the Halon and CO2 fire suppression systems at least once every six months to check for signs of degradation in a manner suitable for trending.

Enhance the program to include inspection of cardox hose reels for corrosion. Acceptance criteria will be enhanced to verify no unacceptable corrosion.

Enhance the program to require visual inspection of concrete flood curbs, manways, hatches, and hatch covers on an 18-month basis to check for signs of degradation. [LRA Section B.1.16]

NLS2008071-09

January 18, 2014

<p>Enhance the Fire Water System Program to include inspection of hose reels for corrosion. Acceptance criteria will be enhanced to verify no unacceptable corrosion.</p> <p>Enhance the program to include visual inspection of spray and sprinkler system internals for evidence of corrosion. Acceptance criteria will be enhanced to verify no unacceptable corrosion.</p> <p>Enhance the program to provide wall thickness evaluations of fire protection piping on system components using non-intrusive techniques (e.g., volumetric testing) to identify evidence of loss of material due to corrosion. These inspections will be performed before the end of the current operating term and at intervals thereafter during the period of extended operation. Results of the initial evaluations will be used to determine the appropriate inspection interval to ensure aging effects are identified prior to loss of intended function.</p> <p>Enhance the program to add that a sample of sprinkler heads required for 10 CFR 50.48 will be tested or replaced using guidance of NFPA-25 (2002 edition), Section 5.3.1.1.1, before the end of the 50-year sprinkler head service life and at 10-year intervals thereafter during the period of extended operation. [LRA Section B.1.17]</p>	NLS2008071-10	January 18, 2014
<p>Enhance the Flow-Accelerated Corrosion Program to update the System Susceptibility Analysis for this program to reflect the lessons learned and new technology that became available after the publication of NSAC-202L Revision 1. [LRA Section B.1.18]</p>	NLS2008071-11	January 18, 2014
<p>Enhance the Inservice Inspection - IWF Program to include Class MC piping and component supports.</p> <p>Enhance the program to clarify that the successive inspection requirements of IWF-2420 and the additional examination requirements of IWF-2430 will be applied. [LRA Section B.1.20]</p>	NLS2008071-12	January 18, 2014

## ATTACHMENT 3

## LIST OF REGULATORY COMMITMENTS©

<p>Enhance the Masonry Wall Program to clarify that the control house – 161 kV switchyard is included in the program.</p> <p>Enhance the program to clarify that structures with conditions classified as “acceptable with deficiencies” or “unacceptable” shall be entered into the Corrective Action Program. [LRA Section B.1.21]</p>	NLS2008071-13	January 18, 2014
<p>Implement the Metal-Enclosed Bus Inspection Program. [LRA Section B.1.22]</p>	NLS2008071-14	January 18, 2014
<p>Implement the Non-EQ Bolted Cable Connections Program. [LRA Section B.1.24]</p>	NLS2008071-15	January 18, 2014
<p>Implement the Non-EQ Inaccessible Medium-Voltage Cable Program. [LRA Section B.1.25]</p>	NLS2008071-16	January 18, 2014
<p>Implement the Non-EQ Instrumentation Circuits Test Review Program. [LRA Section B.1.26]</p>	NLS2008071-17	January 18, 2014
<p>Implement the Non-EQ Insulated Cables and Connections Program. [LRA Section B.1.27]</p>	NLS2008071-18	January 18, 2014
<p>Enhance the Oil Analysis Program to include viscosity, neutralization number, and flash point determination of oil samples from components that do not have regular oil changes, along with analytical ferrography and elemental analysis for the identification of wear particles.</p> <p>Enhance the program to include screening for particulate and water content for oil replaced periodically.</p> <p>Enhance the program to formalize preliminary oil screening for water and particulates and laboratory analyses, including defined acceptance criteria for all components included in the scope of the program. The program will specify corrective actions in the event acceptance criteria are not met. [LRA Section B.1.28]</p>	NLS2008071-19	January 18, 2014
<p>Implement the One-time Inspection Program. [LRA Section B.1.29]</p>	NLS2008071-20	January 18, 2014
<p>Implement the One-time Inspection – Small-Bore Piping Program. [LRA Section B.1.30]</p>	NLS2008071-21	January 18, 2014

<p>Enhance the Periodic Surveillance and Preventive Maintenance Program to include the activities described in the table provided in the program description of LRA Section B.1.31.</p> <p>For each activity that refers to a representative sample, a representative sample will be selected for each unique material and environment combination. The sample size will be determined in accordance with Chapter 4 of EPRI 107514, Age-Related Degradation Inspection Method and Demonstration, which outlines a method to determine the number of inspections required for 90% confidence that 90% of the population does not experience degradation. [LRA Section B.1.31]</p>	NLS2008071-22	January 18, 2014
<p>Enhance the Reactor Vessel Surveillance Program to add that if the CNS standby capsule is removed from the reactor vessel without the intent to test it, the capsule will be stored in a manner which maintains it in a condition which would permit its future use, including during the period of extended operation.</p> <p>Enhance the program to ensure that the additional requirements that are specified in the final NRC safety evaluation for BWRVIP-116 will be addressed before the period of extended operation. [LRA Section B.1.33]</p>	NLS2008071-23	January 18, 2014
Implement the Selective Leaching Program. [LRA Section B.1.34]	NLS2008071-24	January 18, 2014

<p>Revise procedures to ensure the structures described in the LRA Section B.1.36 table are included in the program.</p> <p>Revise procedures to ensure the commodities described in the LRA Section B.1.36 table are inspected, as applicable.</p> <p>Enhance the Structures Monitoring Program to add guidance to inspect inaccessible concrete areas that are submerged or below grade which may become exposed due to excavation, construction or other activities. CNS will also inspect inaccessible concrete areas when observed conditions in accessible areas exposed to the same environment indicate that significant concrete degradation is occurring.</p> <p>Enhance the Structures Monitoring Program to perform inspections of elastomers (seals, gaskets, and roof elastomers) to identify cracking and change in material properties.</p> <p>Enhance the Structures Monitoring Program to perform an engineering evaluation of groundwater samples to assess aggressiveness of groundwater to concrete on a periodic basis (at least once every five years). CNS will obtain samples from a well that is representative of the groundwater surrounding below-grade site structures. Samples will be monitored for sulfates, pH and chlorides.</p> <p>Enhance the Structures Monitoring Program to add guidance to perform visual structural examinations of wood to identify loss of material and change in material properties.</p> <p>Enhance the Structures Monitoring Program to add guidance to perform visual structural monitoring of the oil tank bunker crushed rock fill to identify loss of form.</p> <p>Enhance the Structures Monitoring Program to clarify that structures with conditions classified as "acceptable with deficiencies" or "unacceptable" shall be entered into the Corrective Action Program.</p> <p>[LRA Section B.1.36]</p>	NLS2008071-25	January 18, 2014
<p>Implement the Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program. [LRA Section B.1.37]</p>	NLS2008071-26	January 18, 2014