



Nebraska Public Power District

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54.17

NLS2009085
October 22, 2009

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

Subject: Response to Request for Additional Information for the Review of Cooper Nuclear Station License Renewal Application
Cooper Nuclear Station, Docket No. 50-298, DPR-46

- References:**
1. Letter from Tam Tran, U.S. Nuclear Regulatory Commission, to Stewart B. Minahan, Nebraska Public Power District, dated September 28, 2009, "Request for Additional Information for the Review of the Cooper Nuclear Station License Renewal Application (TAC No. MD9763 and MD9737)."
 2. Letter from Stewart B. Minahan, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated September 24, 2008, "License Renewal Application" (NLS2008071).

Dear Sir or Madam:

The purpose of this letter is for the Nebraska Public Power District to respond to the Nuclear Regulatory Commission (NRC) Request for Additional Information (Reference 1) regarding the Cooper Nuclear Station License Renewal Application (LRA). This response is provided in Attachment 1. Attachment 2 formalizes a commitment made during the NRC Region 4 license renewal inspection, supplementing the previous enhancements committed to in the LRA (Reference 2) for the Structures Monitoring Program.

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

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

Executed on 10/22/09
(Date)

Sincerely,



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

/wv

Attachments

cc: Regional Administrator w/ attachments
USNRC - Region IV

Cooper Project Manager w/ attachments
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/ attachments
USNRC - CNS

Nebraska Health and Human Services w/ attachments
Department of Regulation and Licensure

NPG Distribution w/ attachments

CNS Records w/ attachments

Attachment 1

Response to Request for Additional Information
for License Renewal Application
Cooper Nuclear Station, Docket No. 50-298, DPR-46

The Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) regarding the License Renewal Application is shown in italics. The Nebraska Public Power District's (NPPD) response to this RAI is shown in block font.

NRC Request: *RAI B.1.10-5*

Background:

The Generic Aging Lessons Learned Report states that proper maintenance of protective coatings inside containment is essential to ensure operability of post-accident safety systems that rely on water recycled through the containment sump or drain system. Degradation of coatings can lead to clogging of strainers, which reduces flow through the sump or drain system.

Issue:

The Cooper Nuclear Station (CNS) license renewal application (LRA) does not credit the protective coating monitoring and maintenance program for aging management; the containment Inservice Inspection (ISI) Program manages the effects of aging on the drywell shell. Although the licensee stated that enhancements will be made to the containment ISI Program to inspect surfaces for signs of distress, there needs to be adequate assurance that there is proper maintenance of the protective coatings in containment, such that they will not degrade and become a debris source that may challenge the emergency core cooling system's performance.

Request

1. *On page B-10 of the LRA (Agencywide Documents Access Management System Accession No. ML083030227), line item XI.S8 states that the NUREG-1801 program is not credited for aging management. The containment ISI Program manages the effect of aging on the drywell shell. Please discuss how the containment ISI Program meets the recommendations of NUREG-1801 XI.S8 in managing the effects of aging at CNS.*
2. *Please describe, in detail, the CNS service level 1 coatings program.*
 - a. *Please describe how the program will ensure that there will be proper maintenance of the protective coatings inside the containment, such that they will*

not become a debris source that could impact the operability of post-accident safety systems that rely on water recycled through the containment sump or drain system in the extended period of operation.

- b. *Please describe the frequency and scope of the inspections, acceptance criteria, and the qualification of personnel who perform containment coatings inspections.*

NPPD Response:

1. As noted in the request and the CNS LRA page B-10, the CNS service level I coating program is not credited for aging management and the CNS Containment Inservice Inspection Program is not comparable to recommendations of the NUREG-1801, XI.S8 program. The CNS Containment Inservice Inspection Program, as described in LRA Section B.1.10, meets the recommendations of the NUREG-1801, XI.S1 program for managing the effects of aging on the drywell shell. As described in response 2 below, the CNS service level I coating program maintains and controls drywell shell coating. However, as part of the CNS Containment Inservice Inspection Program, the coating areas showing signs of degradation (flaking, blistering, peeling, discoloration, and other signs of distress) are also reported to the coating engineer for review and evaluation under the service level I coating program.
2. The CNS service level I coating program provides specific instructions for maintenance of safety-related coatings applied to concrete and steel surfaces within the drywell and torus. It addresses the surface preparation, approved coating material, coating application, qualification of personnel, and coating inspection requirements for repair or replacement of existing coatings within the drywell and torus. The program also applies to coatings on surfaces that will be installed within the drywell and torus.
 - a) In response to NRC Bulletin 96-03 dated May 6, 1996, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling-Water Reactors," CNS implemented the Emergency Core Cooling System (ECCS) suction strainer modification. The modification increased the strainer surface by installing large capacity passive strainers thus ensuring that the resulting debris loading will not result in the available net positive suction head pressure falling below that required for ECCS pump operation during a postulated loss of coolant accident. The CNS response to NRC Bulletin 96-03 was audited by the NRC and found satisfactory (Ref. letter from Mr. David L. Wigginton to Mr. G.R. Horn, dated December 17, 1998).

To minimize potential sump debris, the proper maintenance of the protective coatings in containment is controlled under the CNS service level I coating program. The program, required by 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," addresses application,

maintenance, and inspection of the service level I coatings in the containment, and will remain applicable during the period of extended operation. The program ensures that service level I coating is applied and maintained such that the coating will not become detached creating potential debris. This is accomplished by proper surface preparation, selection of proper coating, use of properly trained applicators, adequate cure time, and inspections by trained, qualified individuals. The coating areas showing signs of degradation (flaking, blistering, peeling, discoloration) are documented in the CNS corrective action program, and are reviewed and evaluated by the coating engineer for acceptability, repair, or replacement.

- b) The CNS service level I containment coating is inspected each refueling outage to ensure the coatings remain intact and do not become potential debris sources. The scope of the inspections includes safety-related coatings applied to concrete and steel surfaces within the drywell and torus. The program specifies visually inspecting the coating surfaces for adverse coating conditions such as flaking, peeling, blistering, discoloration, and other signs of distress. The coating areas showing degradation (flaking, blistering, peeling, discoloration) are documented in the CNS corrective action program, and are reviewed and evaluated by the coating engineer for acceptability, repair, or replacement. The inspections are performed by inspectors who are trained, qualified, and certified to the requirements of ASTM D4537, "Standard Guide for Establishing Procedures to Qualify and Certify Inspection Personnel for Coating Work in Nuclear Facilities."

Attachment 2

Response to Miscellaneous Issues Regarding
the License Renewal Application
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Ongoing dialogue has been occurring with the Nuclear Regulatory Commission (NRC) staff based on previous responses to Requests for Additional Information, and with Region 4 inspectors based on the previously conducted license renewal regional inspection. These discussions have resulted in the need for the Nebraska Public Power District (NPPD) to make a regulatory commitment which will be relied upon by the NRC. Consistent with NPPD standard practice, this commitment is described below so as to be formally entered on the Cooper Nuclear Station docket.

1. Enhancement to the Structures Monitoring Program – NPPD will enhance the Structures Monitoring Program procedure to: a) include more detailed guidance on acceptance criteria (using ACI documents ACI 201.1R-92, and ACI 349.3R-96) to preclude potential inconsistent application of inspection criteria, and b) provide more detailed guidance on trending.

Reference: Discussions pursuant to the Region 4 license renewal inspection.

