

November 19, 2009

Mr. Stewart B. Minahan  
Vice President – Nuclear and Chief Nuclear  
Officer  
Cooper Nuclear Station  
Nebraska Public Power District  
72676 648A Avenue  
Brownville, NE 68321

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
COOPER NUCLEAR STATION LICENSE RENEWAL APPLICATION (TAC NO.  
MD9763 AND MD9737)

Dear Mr. Minahan:

The purpose of this letter is to transmit the request for additional information (RAI) B.1.10-6. The staff has identified, in the enclosure, areas where this additional information is needed to complete the review of the Cooper Nuclear Station license renewal application.

This item in the enclosure was discussed with Mr. David Bremer. If you have any questions, please contact me at 301-415-3617 or by e-mail at [Tam.Tran@nrc.gov](mailto:Tam.Tran@nrc.gov), or Bennett M. Brady at 301-415-2981 or by e-mail at [Bennett.Brady@nrc.gov](mailto:Bennett.Brady@nrc.gov).

Sincerely,

**IRA**

Tam Tran, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure:  
As stated

cc w/encl: See next page

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Letter to Stewart B. Minahan from Tam Tran dated November 19, 2009

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Cooper Nuclear Station

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**REQUEST FOR ADDITIONAL INFORMATION  
REGARDING THE COOPER NUCLEAR STATION  
LICENSE RENEWAL APPLICATION**

**RAI B.1.10-6**

In the NPPD Letter NLS2009055, dated July 29, 2009, the applicant submitted response to RAI B.1.10-2 related to recoating the torus prior to or during the period of extended operation to reduce the corrosion rate. The applicant stated that NPPD does not have firm plans to recoat the torus. However, NPPD will continue to inspect the torus prior to and during the period of extended operation as required by ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWE. The indications found during the inspections will continue to be evaluated to determine the need for corrective actions including, but not limited to, recoating. The last recoating of areas within the torus was the result of the 2005 torus inspection.

The staff is concerned that the large number of repairs, excessive zinc depletion, and pitting at thousands of locations to the torus during the last 35 years indicate that the integrity of the torus coating cannot be relied upon during the period of extended operation. Normal life of the torus coating is 15-20 years and CNS torus has never been recoated. In addition, CNS internal documents concerning self assessment of the torus coating have previously recommended recoating of the torus. Therefore, in order to complete its review, the staff requests the applicant to provide detailed justification for not making a commitment to recoat the torus prior to the start of period of extended operation. Based on site specific operating experience and thousands of repairs performed during the last 35 years, it appears that the torus coating have significantly exceeded its useful life. The response should also include the following information.

1. How many repairs have been performed to the Cooper torus shell coating until now?
2. How many of these repairs were performed at locations where the torus base metal thickness had been reduced by greater than 10 percent?
3. How many of the repairs required augmented inspection (including UT examination) in accordance with ASME Section XI, subsection IWE Code, Table 2500-1? Articles IWE-3122.3.b, IWE 3200, IWE 3511.3 and IWE-2420 of the ASME Code requires augmented examination of the area containing flaw or degradation if the base metal thickness is reduced by greater than 10 percent.
4. The bottom half of interior surface is not easily accessible for visual examination. Therefore, does CNS have any plans to perform UT examination from the torus exterior surface at a number of randomly selected locations to demonstrate with 95 percent confidence that 95 percent of the torus surface has base metal thickness greater than 90 percent of the nominal thickness? If no plans exist, explain the current inspection plan and how the plan ensures the structural integrity of the torus, now and during the period of extended operation.

The staff needs the above information to confirm that the effects of aging of the torus will be adequately managed so that it's intended function will be maintained consistent with the current licensing basis for the period of extended operation as required by 10 CFR 54.21(a)(3).

ENCLOSURE