

NRR-B24

From: "Fleming, Paul V." <pvilemi@nppd.com>  
To: <kmk@nrc.gov>, <mch3@nrc.gov>  
Date: 10/7/04 7:12PM  
Subject: FW: NRC Question on Shaft Expansion at Test Site vs. Plant

Nebraska Public Power  
K. Kennedy, RLV

Kriss/Michelle - here is the answer to the shaft growth question (test conditions to plant conditions).

Paul

> -----Original Message-----

> From: Hottovy, Todd E.

> Sent: Thursday, October 07, 2004 5:59 PM

> To: Fleming, Paul V.

> Cc: Vorpahl Jr., Dwight J.

> Subject: NRC Question on Shaft Expansion at Test Site vs. Plant

>

> Paul,

>

> The attached document has been prepared by Dwight Vorpahl, reviewed by Kent Sutton, and approved by myself.

>

> > <<Thermal shaft growth for nrc.doc>>

>

> The following documents are from Hopper, Elmore, and Associates and are to be included as an attachment to the first document.

>

> > <<045-Service Water Pump Results Summary Enclosure.pdf>> > > <<045-Service Water Pump Results Summary.pdf>>

>

> Todd (X5689)

>

CC: "Hottovy, Todd E." <tehotto@nppd.com>, "Sumpter, James R. [Jim]" <jrsumpt@nppd.com>, "Sutton, Kent E." <kesutto@nppd.com>, "Vorpahl Jr., Dwight J." <djvorpa@nppd.com>

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**HOPPER ELMORE AND ASSOCIATES**  
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October 7, 2004  
HEACNS-10/04-045

**VIA ELECTRONIC MAIL AND U. S. MAIL**

Mr. Dwight Vorpahl  
Nebraska Public Power District  
Cooper Nuclear Station  
P. O. Box 98  
Brownville, NE 68321-0098

Subject: Service Water Pump Shaft  
Thermal Growth Evaluation  
Results Summary Transmittal

References: Vorpahl, Elmore Technical Conversation on the Subject, October 7, 2004.

Dear Mr. Vorpahl:

In accordance with the reference we have prepared and enclose the subject results summary for your records. Our calculation package is being prepared and will be finalized and submitted next week.

It has been our pleasure assisting you with this interesting project. If you have any questions please do not hesitate to contact Mr. Mark Glelow or myself.

Very truly yours,



Kelley S. Elmore  
Professional Engineer

cc: Mr. Todd Hottovy