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a joint venture of

**CALVERT CLIFFS
NUCLEAR POWER PLANT**

May 11, 2011

U. S. Nuclear Regulatory Commission
Washington, DC 20555**ATTENTION:** Document Control Desk**SUBJECT:** Calvert Cliffs Nuclear Power Plant
Unit No. 2; Docket No. 50-318
ASME Code Section XI Evaluation of Pressurizer Heater Sleeve Penetration
Repair Performed During Unit 2 2011 Refueling Outage

During the Unit 2 2011 refueling outage, Calvert Cliffs Nuclear Power Plant, LLC, conducted visual examinations on the Reactor Coolant System pressurizer bottom head penetrations to satisfy Code Case N-722 requirements. Indication of leakage was identified at pressurizer heater penetration N-3. Subsequent non-destructive examination of the affected pressurizer heater sleeve (N-3 location) determined the through-wall leak in the Reactor Coolant System boundary was in the weld between the pressurizer heater outer sleeve and the pad weld. This exceeded the acceptance standards of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2004 Edition no addenda Subsection IWB, Sub-article IWB-31442.1(b). The flaw in the pressurizer heater sleeve was removed and a plug was installed in accordance with ASME Boiler and Pressure Vessel Code, Section XI, 2004 Edition no addenda Subsection IWB, Sub-article IWB-3142.3. To address a postulated condition of the original remnant J-groove weld, an ASME Boiler and Pressure Vessel Code, Section XI, Sub-article IWB 3600 analytical evaluation was performed. The analytical evaluation concluded that the worst case postulated flaw in the original remnant J-groove weld/clad region would be acceptable for one cycle of operation. As required by ASME Boiler and Pressure Vessel Code, Section XI, 2004 Edition no Addenda, Sub-section IWB, Sub-paragraph IWB 3144(b), the analytical evaluation that demonstrates the component's acceptability is to be provided to the regulatory authority and is provided in Attachment (1). Since Attachment (1) references a Unit 1 postulated remnant flaw evaluation, that evaluation is also provided in Attachment (2).

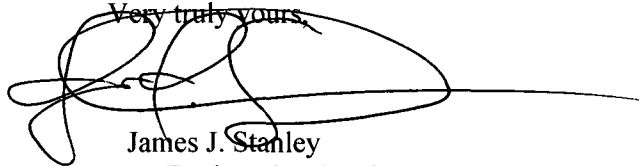
In addition, we are also submitting a corrosion evaluation for the pressurizer heater sleeve repair (Attachment 3). Note that all of these evaluations contain information that is proprietary to AREVA, therefore, it is accompanied by affidavits signed by AREVA, owner of the information (Attachment 4). The Affidavits set forth, with specificity, the considerations listed in 10 CFR 2.390(b)(4). Accordingly, it

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Document Control Desk
May 11, 2011
Page 2

is requested that the information that is proprietary to AREVA be withheld from public disclosure. The non-proprietary versions of Attachments (1) through (3) are included as Attachments (5) through (7).

Should you have questions regarding this matter, please contact Mr. Douglas E. Lauer at (410) 495-5219.

Very truly yours,

James J. Stanley
Manager – Engineering Services

JJS/PSF/bjd

- Attachments:
- (1) Pressurizer As-Left Remnant J-Groove Weld Flaw Evaluation - Proprietary
 - (2) Unit 1 Pressurizer Heater Sleeve As-Left J-Groove Weld Flaw Evaluation for IDTB Repair - Proprietary
 - (3) Corrosion Evaluation for Pressurizer Heater Sleeve Repair - Proprietary
 - (4) Proprietary Affidavits
 - (5) Pressurizer As-Left Remnant J-Groove Weld Flaw Evaluation – Non-Proprietary
 - (6) Unit 1 Pressurizer Heater Sleeve As-Left J-Groove Weld Flaw Evaluation for IDTB Repair – Non-Proprietary
 - (7) Corrosion Evaluation for Pressurizer Heater Sleeve Repair – Non-Proprietary

cc: **Without Attachments (1) through (3)**
D. V. Pickett, NRC
W. M. Dean, NRC

Resident Inspector, NRC
S. Gray, DNR

ATTACHMENT (4)

PROPRIETARY AFFIDAVITS

AFFIDAVIT

COMMONWEALTH OF VIRGINIA)
) ss.
COUNTY OF CAMPBELL)

1. My name is Pedro Salas. I am Acting Manager, Corporate Regulatory Affairs for AREVA NP Inc. and as such I am authorized to execute this Affidavit.

2. I am familiar with the criteria applied by AREVA NP to determine whether certain AREVA NP information is proprietary. I am familiar with the policies established by AREVA NP to ensure the proper application of these criteria.

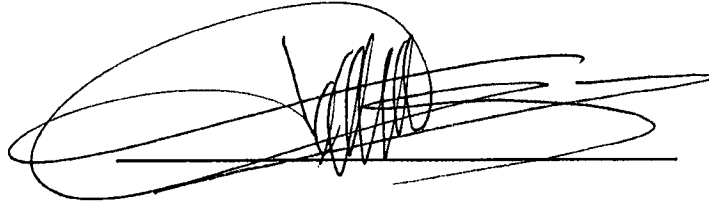
3. I am familiar with the AREVA NP information contained in 32-9156200-001, CCNPP-2 Pressurizer – As-Left, Remnant J-Groove Weld Flaw Evaluation, and 32-9116467-003, CCNPP-1 PZR Heater Sleeve As-Left J-Groove Weld Flaw Evaluation for IDTB Repair, and referred to herein as “Documents.” Information contained in these documents have been classified by AREVA NP as proprietary in accordance with the policies established by AREVA NP for the control and protection of proprietary and confidential information.

4. These Documents contain information of a proprietary and confidential nature and is of the type customarily held in confidence by AREVA NP and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in these Documents as proprietary and confidential.

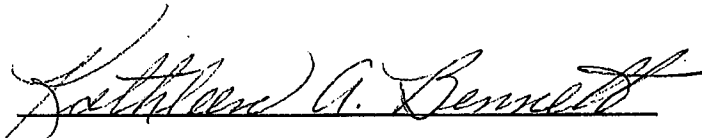
5. These Documents have been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in these Documents be withheld from public disclosure. The request for withholding of proprietary information is made in accordance with 10 CFR 2.390. The information for which withholding from disclosure

8. AREVA NP policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

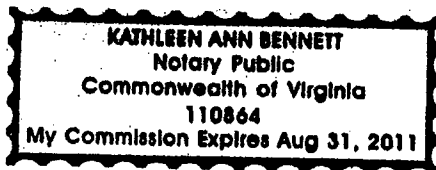
9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

A large, stylized handwritten signature in black ink, consisting of several overlapping loops and horizontal strokes.

SUBSCRIBED before me this 15th
day of March, 2011.

A handwritten signature in black ink that reads "Kathleen A. Bennett".

Kathleen A. Bennett
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES: 8/31/2011
Registration No. 110864



AFFIDAVIT

COMMONWEALTH OF VIRGINIA)
) ss.
 CITY OF LYNCHBURG)

1. My name is Gayle F. Elliott. I am Manager, Product Licensing, for AREVA NP Inc. and as such I am authorized to execute this Affidavit.

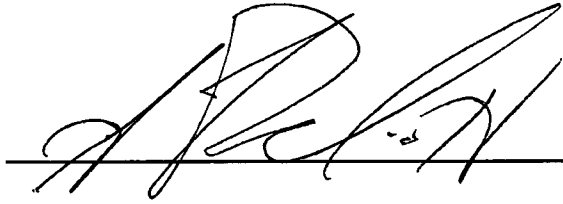
2. I am familiar with the criteria applied by AREVA NP to determine whether certain AREVA NP information is proprietary. I am familiar with the policies established by AREVA NP to ensure the proper application of these criteria.

3. I am familiar with the AREVA NP Engineering Information Record, Document Number 51-9156066, Revision 000, entitled "Corrosion Evaluation for Calvert Cliffs Unit 2 Pressurizer Heater Sleeve Repair," dated March 2011 and referred to herein as "Document." Information contained in this Document has been classified by AREVA NP as proprietary in accordance with the policies established by AREVA NP for the control and protection of proprietary and confidential information.

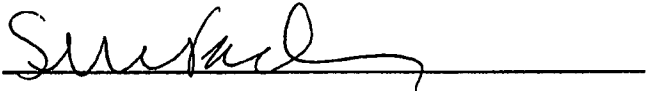
4. This Document contains information of a proprietary and confidential nature and is of the type customarily held in confidence by AREVA NP and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in this Document as proprietary and confidential.

5. This Document has been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in this Document be withheld from public disclosure. The request for withholding of proprietary information is made in accordance with 10 CFR 2.390. The information for which withholding from disclosure is

9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

A handwritten signature in black ink, appearing to be 'A. B. A.', written over a horizontal line.

SUBSCRIBED before me this 10th
day of March 2011.

A handwritten signature in black ink, appearing to be 'Sherry L. McFaden', written over a horizontal line.

Sherry L. McFaden
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES: 10/31/14
Reg. # 7079129

