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June 5, 2017

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Calvert Cliffs Nuclear Power Plant, Unit No. 1  
Renewed Facility Operating License No. DPR-53  
NRC Docket No. 50-317

Subject: Inservice Inspection Report

Reference: 1. American Society of Mechanical Engineers, Boiler & Pressure Vessel Code,  
Section XI, Article IWA-6000

Pursuant to Reference 1, please find enclosed the Inservice Inspection Report for the Calvert Cliffs Nuclear Power Plant Unit 2.

There are no regulatory commitments contained in this letter.

Should you have questions regarding this matter, please contact Mr. Larry D. Smith at (410) 495-5219.

Respectfully,

A handwritten signature in black ink that reads "Larry D. Smith".

Larry D. Smith  
Manager – Regulatory Assurance

LDS/PSF/bjm

Enclosure: (1) 2017 Owner's Activity Report for 2-RFO-21 Inservice Examinations

cc: Mr. Robert Gavel

cc: **(Without Enclosure)**  
NRC Project Manager, Calvert Cliffs  
NRC Regional Administrator, Region I

NRC Resident Inspector, Calvert Cliffs  
S. Gray, MD-DNR

AD47  
NRR

**ENCLOSURE (1)**

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**2017 OWNER'S ACTIVITY REPORT FOR  
2-RFO-21 INSERVICE EXAMINATIONS**

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Calvert Cliffs Nuclear Power Plant, LLC  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657



**Fourth Interval / Third Period  
Inservice Inspection Program**

**and**


**Second Interval / Third Period  
Containment IWE/IWL Program**

**2017 Owner's Activity Report  
for  
2-RFO-21 Inservice Examinations**

Commercial Service Date: April 1, 1977  
NRC Docket Number: 50-318  
Document Number: CCNPP-2-OAR-004-021  
Revision Number: 00

Prepared by: Jeffrey McIntyre 6/2/17  
Jeffrey McIntyre – Site ISI Program Owner

Approved by: Kurt Bodine 6/2/17  
Kurt Bodine – Manager Engineering Programs

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	<b>Fourth Interval / Third Period Inservice Inspection  Second Interval / Third Period Containment  2017 Owner's Activity Report  for  RFO-21 Inservice Examinations</b>	

### Abstract

This Owner's Activity Report (OAR) summarizes the results of the Calvert Cliffs Nuclear Power Plant (CCNPP), Unit 2, American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code (B&PVC), Section XI, Inservice Inspection (ISI) examinations performed in Refueling Outage twenty one (RFO-21) during the period from March 10, 2015 through March 05, 2017 of the Third Inservice Inspection Period beginning on October 10, 2016 and ending on June 30, 2019, and the Fourth outage of the Fourth Ten-Year Inservice Inspection Interval beginning on October 10, 2009 and ending on June 30, 2019.

This report complies with all requirements set forth by ASME B&PVC, Section XI 2004 Edition no Addenda, and Article IWA-6000 as modified by ASME Code Case N-532-4 "Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission."

In accordance with ASME Section XI, IWB-2400, IWC-2400, IWD-2400, IWE-2400, IWF-2400, and IWL-2400, Tables IWB-2500-1, IWC-2500-1, IWD-2500-1, IWE-2500-1, IWF-2500-1, and IWL-2500-1, and those examinations which CCNPP has requested and received approval in the form of requests for relief or alternates, the required examinations in each examination category have been completed for the First outage of the Third Inspection Period of the Fourth Inspection Interval in accordance with Tables IWB-2412-1, IWC-2412-1, IWD-2412-1, IWE-2412-1, IWF-2410-2, and IWL-2521-2.

#### Owner's Activity Reports – Form OAR-1

The Owner's Activity Report, Form OAR-1, was prepared and certified upon completion of examination activities conducted during the Calvert Cliff's Nuclear Power Plant Unit 2, 2017 Refueling Outage (RFO-21) in accordance with the following inspection program plans:

- Fourth Interval Inservice Inspection Program Plan
- Second Interval Containment Inservice Inspection Program Plan
- Fourth Interval Inservice Inspection Pressure Testing Program Plan

In addition to the Owner's Activity Report, Form OAR-1, the following Tables are also included:

- a. **Items with Flaws or Relevant Conditions that Require Evaluation for Continued Service**, Table 1, which provides a listing of item(s) with flaws or relevant conditions that required evaluation to determine acceptability for continued service, whether or not the flaw or relevant condition was discovered during a scheduled examination or test, and provides such information as Examination Category, Examination Item Number, Item Description, Flaw Characterization (as required by IWA-3300).
- b. **Abstract of Repairs, Replacements or Corrective Measures Required for Continued Service**, Table 2, which identifies those items containing flaws or relevant conditions that exceeded the ASME XI acceptance criteria (IWB-3000, IWC-3000, IWD-3000, IWE-3000, IWF-3000, and IWL-3000); even though the discovery of the flaw or relevant condition that necessitated the repair, replacement, or corrective measure may not have resulted from an examination or test required by ASME Section XI, and provides such information as Code Class, item description, description of work, date completed, and the repair replacement plan number.



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Calvert Cliffs Nuclear Power Plant Unit 2  
Fourth Interval / Third Period Inservice Inspection  
Second Interval / Third Period Containment  
2017 Owner's Activity Report  
for  
RFO-21 Inservice Examinations

CCNPP-2-OAR-004-021  
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FORM OAR-1 OWNER'S ACTIVITY REPORT  
Fourth Interval/Third Period of Inservice Inspection Program  
As required by the provisions of the ASME Code Case N-532-4

Report Number CCNPP-2-OAR-004-021  
Plant Calvert Cliffs Nuclear Power Plant  
Unit No. 2 Commercial Service Date April 1, 1977 Refueling Outage Number RFO-21  
(if applicable)  
Current Inspection Interval Fourth Inservice Inspection Interval – October 10, 2009 to June 30, 2019  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, other)  
Current Inspection Period Third Inservice Inspection Period – October 10, 2016 to June 30, 2019  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)  
Edition and Addenda of Section XI applicable to the inspection Plans 2004 Edition, No addenda  
Date / Revision of Inspection Plans Rev. 2 Ch. 0 Dated August 19, 2015  
Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans N/A  
Code Cases used: N-460, N-532-4, N-513-3, N-566-2, N-616, N-624, N-639, N-686-1, N-716, N-722-1, N-729-1, N-747, N-753, N-552, and N-586-1

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests, meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of RFO-21 conform to the requirements of Section XI (refueling outage number)


Signed Kurt Bodine - DKB Date June 2, 2017  
Manager, CCNPP Nuclear Engineering Programs

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Maryland and employed by The Hartford Steam Boiler Inspection and Insurance Co. of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty expressed or implied concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Ago Colanen Commissions NB 15304 ANI, MD 1328  
(Inspector's Signature) National Board, State, Province, and Endorsements  
Date June 2, 2017

	<b>Calvert Cliffs Nuclear Power Plant Unit 2</b> Fourth Interval / Third Period Inservice Inspection Second Interval / Third Period Containment 2017 Owner's Activity Report for RFO-21 Inservice Examinations	<b>CCNPP-2-OAR-004-021</b> Rev. 00 June 2, 2017 Page 4 of 6

**FORM OAR-1 OWNER'S ACTIVITY REPORT**  
**Second Interval/Third Period of Containment IWE/L Inservice Inspection Program**  
 As required by the provisions of the ASME Code Case N-532-4

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Report Number CCNPP-2-OAR-004-021

Plant Calvert Cliffs Nuclear Power Plant

Unit No. 2 Commercial Service Date April 1, 1977 Refueling Outage Number RFO-21  
(if applicable)

Current Inspection Interval Second Inservice Inspection Interval – September 9, 2009 to September 9, 2018  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, other)

Current Inspection Period Third Inservice Inspection Period – September 9, 2015 to September 9, 2018  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)

Edition and Addenda of Section XI applicable to the Inspection Plans 2004 Edition, No addenda

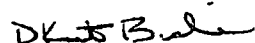
Date / Revision of Inspection Plans Rev. 1 Dated Feb. 6, 2014

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans N/A

Code Cases used: N-532-4, N-624, N-686-1, N-739, N-753

**CERTIFICATE OF CONFORMANCE**

I certify that (a) the statements made in this report are correct; (b) the examinations and tests, meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of RFO-21 conform to the requirements of Section XI  
(refueling outage number)

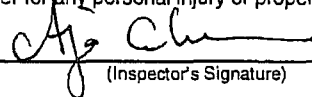
Signed Kurt Bodine -  Date June 2, 2017  
Manager, CCNPP Nuclear Engineering Programs

**CERTIFICATE OF INSERVICE INSPECTION**


I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Maryland and employed by The Hartford Steam Boiler Inspection and Insurance Co. of Hartford, Connecticut

have inspected the items described in this Owner's Activity Report, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty expressed or implied concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection


 Commissions NB 15304 ANI, MD 1328  
(Inspector's Signature) National Board, State, Province, and Endorsements

Date June 2, 2017

	<b>Calvert Cliffs Nuclear Power Plant Unit 2</b>	<b>CCNPP-2-OAR-004-021</b> Rev. 00 June 2, 2017 Page 5 of 6
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**Table 1**  
**Items with Flaws or Relevant Condition that Require Evaluation for Continued Service**  
As required by the provisions of the ASME Code Case N-532-4

<b>Examination Category</b>	<b>Item Number</b>	<b>Item Description</b>	<b>Evaluation Description</b>
R-A	R1.11	Charging Nozzle 21A Dissimilar Metal Weld	Acceptance by Design Evaluation per IWB-3600 (ECP-17-000151)
F-A	F1.20C	10-SI-2003 R-15 Component Support	Acceptance by Design Evaluation per IWF-3112.3 (ECP-17-000123)
F-A	F1.20B	10-SC-2014 H-7, R-6 Component Support	Acceptance by Design Evaluation per IWF-3112.3 (ECP-17-000123)
L-B	L2.30	Tendon 35H25	Accepted by Responsible Engineer (RPE) (Evaluation per IWL-3300 and documented on IR 04017816)

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**Table 2**  
**Abstract of Repairs, Replacements or Corrective Measures Required for Continued Service**  
 as required by the provisions of the ASME Code Case N-532-4

Code Class	Item Description	Description of Work	Date Completed	R&R Plan Number
3	2-LJ1-2010 Piping Segment	2-LJ1-2010 Through-wall Defect Repair and Weld Build-Up	3/4/2017	2017-2-011

End  
 of  
 Owner's Activity Report  
 for  
 Refueling Outage 21 (RFO-21)