



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

August 31, 2016

Mr. Bryan C. Hanson  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR CALVERT CLIFFS NUCLEAR  
POWER PLANT, UNITS 1 AND 2, REPORT 05000317/2016005 AND  
05000318/2016005**

Dear Mr. Hanson:

On August 9, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Calvert Cliffs Nuclear Power Plant, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PI) in addition to inspection results and enforcement actions from July 1, 2015 through June 30, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Calvert Cliffs Units 1 and 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Calvert Cliffs Units 1 and 2 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., Green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last half of the inspection period in the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence. In addition to baseline inspections, the NRC will perform Inspection Procedure 60855.1, "Operation of an Independent Spent Fuel Storage Installation at Operating Plants."

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Final Safety Evaluation for the site. After the NRC staff receives

the Final Compliance letter for the site, the Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 2515-191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," (ADAMS Accession No. ML16104A158) the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 610-337-6953 with any questions you have regarding this letter.

Sincerely,

**/RA/**

Anthony Dimitriadis, Chief  
Projects Branch 1  
Division of Reactor Projects

Docket Nos. 50-317, 50-318  
License Nos. DPR-53, DPR-69

Enclosure:  
Calvert Cliffs Inspection Plan

cc: Distribution via ListServ

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DOCUMENT NAME: S:\ROP Assessment Meetings\ROP-17 Mid-Cycle Review\Branch 1\Calvert Cliffs\2016 CC mid cycle assessment Ltr Final.docs.docx  
 ADAMS ACCESSION NUMBER: **ML16242A307**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	R1/DRP	RI/DRP			
NAME	ARosebrook	ADimitriadis			
DATE	08/23/16	08/31/16			

Letter to Mr. Bryan C. Hanson from Anthony Dimitriadis dated August 31, 2016

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR CALVERT CLIFFS NUCLEAR  
POWER PLANT, UNITS 1 AND 2, REPORT 05000317/2015006 AND  
05000318/2016005

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ROPReports Resource  
ROPAssessment Resource  
RidsNrrDirslpabResources

**Calvert Cliffs**  
**Inspection / Activity Plan**  
 07/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>ISFSI - ISFSI LOADING CAMPAIGN</b>		<b>5</b>
1,2	08/15/2016	08/19/2016	IP 60855	Operation Of An ISFSI	
1,2	08/15/2016	08/19/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>BI - RADIOLOGICAL SAFETY - EXT EXPOSURE</b>		<b>1</b>
1,2	08/22/2016	08/26/2016	IP 71124.04	Occupational Dose Assessment	
			<b>BI - RADIOLOGICAL SAFETY - AIRBORNE</b>		<b>1</b>
1,2	08/29/2016	09/02/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			<b>TRI FI - TRIENNIAL FIRE INSPECTION</b>		<b>4</b>
1,2	09/12/2016	09/16/2016	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
1,2	09/26/2016	09/30/2016	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>1</b>
1,2	09/12/2016	09/16/2016	IP 7111402	Alert and Notification System Testing	
1,2	09/12/2016	09/16/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1,2	09/12/2016	09/16/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
			<b>BI - RADIOLOGICAL SAFETY - ALARA</b>		<b>1</b>
1,2	10/03/2016	10/07/2016	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BI - RADIOLOGICAL SAFETY - RAD HAZ &amp; PIV</b>		<b>1</b>
1,2	12/05/2016	12/09/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	12/05/2016	12/09/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1,2	12/05/2016	12/09/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>71124 - RADIATION SAFETY - INSTRUMENTS</b>		<b>1</b>
1,2	01/09/2017	01/13/2017	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>71124 - RADIATION SAFETY - RETS</b>		<b>1</b>
1,2	02/06/2017	02/10/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			<b>7111108P - U2 INSERVICE INSPECTION</b>		<b>1</b>
2	02/21/2017	03/03/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>71124 - RADIATION SAFETY - RAD HAZ PIV</b>		<b>1</b>
1,2	02/27/2017	03/03/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	02/27/2017	03/03/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1,2	02/27/2017	03/03/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>71124.08 - RADWASTE</b>		<b>1</b>
1,2	04/10/2017	04/14/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>MODS - PERMANENT PLANT MODIFICATIONS</b>		<b>3</b>
1,2	04/24/2017	04/28/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.

**Calvert Cliffs**  
**Inspection / Activity Plan**  
**07/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>MODS - PERMANENT PLANT MODIFICATIONS</b>		<b>3</b>
1,2	05/08/2017	05/12/2017	IP 711117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			<b>7111107T - TRIENNIAL HEAT SINK</b>		<b>1</b>
1,2	06/12/2017	06/16/2017	IP 7111107T	Heat Sink Performance	
			<b>71152B - PI&amp;R BIENNIAL TEAM INSPECTION</b>		<b>7</b>
1,2	07/31/2017	08/04/2017	IP 71152B	Problem Identification and Resolution	
1,2	08/14/2017	08/18/2017	IP 71152B	Problem Identification and Resolution	
			<b>EP - EP EXERCISE EVALUATION</b>		<b>4</b>
1,2	09/11/2017	09/15/2017	IP 7111401	Exercise Evaluation	
1,2	09/11/2017	09/15/2017	IP 71151	Performance Indicator Verification	
			<b>7111111B - CC REQUAL INSP WITH P/F RESULTS</b>		<b>2</b>
1,2	11/13/2017	11/17/2017	IP 7111111B	Licensed Operator Requalification Program	
			<b>71124 - RADIATION SAFETY - REMP</b>		<b>1</b>
1,2	10/02/2017	10/06/2017	IP 71124.07	Radiological Environmental Monitoring Program	
			<b>6/11EXAM - CALVERT CLIFFS INITIAL EXAM</b>		<b>4</b>
1	05/14/2018	05/18/2018	U01959	FY18 CALVERT CLIFFS EXAM (JUNE 2018)	
1	06/11/2018	06/22/2018	U01959	FY18 CALVERT CLIFFS EXAM (JUNE 2018)	
			<b>HP - ALARA</b>		<b>1</b>
1	01/08/2018	01/12/2018	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>U1 ISI - UNIT 1 INSERVICE INSPECTION</b>		<b>2</b>
1	02/19/2018	03/02/2018	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>HP - RAD HAZARD</b>		<b>1</b>
1,2	02/26/2018	03/02/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			<b>HP - RAD AIRBORNE</b>		<b>1</b>
1,2	05/14/2018	05/18/2018	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	

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