



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

September 1, 2015

Mr. George H. Gellrich
Site Vice President
Calvert Cliffs Nuclear Power Plant, LLC
Exelon Generation Company, LLC
1650 Calvert Cliffs Parkway
Lusby, MD 20657

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR CALVERT CLIFFS NUCLEAR
POWER PLANT UNITS 1 AND 2 (REPORT 05000317/2015005
AND 05000318/2015005)**

Dear Mr. Gellrich:

On August 12, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Calvert Cliffs Nuclear Power Plant (Calvert Cliffs) Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014, through June 30, 2015. 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). Calvert Cliffs Unit 2 was in the Regulatory Response Column of the NRC's ROP Action Matrix until the end of first quarter 2015, due to a finding of low to moderate safety significance (White) in the Emergency Preparedness cornerstone as documented in a White Notice of Violation and Assessment Follow-Up Letter (ADAMS Accession No. ML14297A547) dated October 27, 2014. Calvert Cliffs Unit 2 transitioned to the Licensee Response Column at the beginning of second quarter 2015 after a supplemental inspection for the White finding was successfully completed February 6, 2015, as documented in NRC Supplemental Inspection Report 05000318/2015008 and Assessment Follow-Up Letter (ML15070A127) dated March 10, 2015. Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

In addition to baseline inspections, the NRC will perform Temporary Instruction (TI) 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." The enclosed inspection plan lists the inspections scheduled through June 30, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of 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 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," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring wide-range spent fuel pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The onsite portion of this audit has been completed at Calvert Cliffs Units 1 and 2, and the information gathered will aid staff in development of the Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, as mentioned above, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing TI 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 accordance with Title 10 of the *Code of Federal Regulations*, Part 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 component of NRC's Agencywide Documents Access and Management 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 Daniel Schroeder at (610) 337-5262 with any questions you have regarding this letter.

Sincerely,

/RA/

Michael L. Scott, Director
Division of Reactor Projects

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

Enclosure:
Calvert Cliffs Inspection/Activity Plan

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See next page

DOCUMENT NAME: \\S:\ROP Assessment Meetings\ROP-16 Mid-Cycle Review\Branch 1\Mid Cycle Letters\CC ROP-16 MC Letter.docx
ADAMS Accession No. **ML15239A729**

<input type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive		<input checked="" type="checkbox"/> Publicly Available	
		<input type="checkbox"/> Sensitive		<input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP/PB1	RI/DRP/PB1	RI/DRP		
NAME	ARosebrook/AAR	DSchroeder/DLS	MScott/MLS		
DATE	8/17/15	8/18/15	8/26/15		

Letter to George H. Gellrich from Michael L. Scott dated September 1, 2015

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR CALVERT CLIFFS NUCLEAR
POWER PLANT UNITS 1 AND 2 (REPORT 05000317/2015005
AND 05000318/2015005)

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Calvert Cliffs
 Inspection / Activity Plan
 07/01/2015 - 06/30/2017

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			71152B - PI&R - BIENNIAL		4
1,2	09/21/2015	09/25/2015	IP 71152B	Problem Identification and Resolution	
1,2	10/05/2015	10/09/2015	IP 71152B	Problem Identification and Resolution	
			EP - EP EXERCISE		5
1,2	09/14/2015	09/18/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
1,2	09/14/2015	09/18/2015	IP 7111408	Exercise Evaluation - Scenario Review	
			711111B - REQUAL INSP W/ P/F RESULTS		2
1,2	11/16/2015	11/20/2015	IP 711111B	Licensed Operator Requalification Program	
			CDBI - COMPONENT DESIGN BASIS INSPECTION TEAM		6
1,2	11/02/2015	11/06/2015	IP 7111121	Component Design Bases Inspection	
1,2	11/16/2015	11/20/2015	IP 7111121	Component Design Bases Inspection	
			71124 - RADIATION SAFETY INSPECTION - DOSE		1
1,2	11/02/2015	11/06/2015	IP 71124.04	Occupational Dose Assessment	
1,2	11/02/2015	11/06/2015	IP 71151	Performance Indicator Verification	
			CDBI - COMPONENT DESIGN BASIS INSPECTION PROGRA		3
1,2	12/14/2015	12/18/2015	IP 7111121	Component Design Bases Inspection	
			EXM8/8 - CALVERT CLIFFS INITIAL EXAM		4
1	05/16/2016	05/20/2016	U01923	FY16-CC INITIAL OPERATOR LICENSING EXAM	
1	06/13/2016	06/24/2016	U01923	FY16-CC INITIAL OPERATOR LICENSING EXAM	
			BI - RADIOLOGICAL SAFETY - HAZARDS O		1
1,2	02/22/2016	02/26/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	02/22/2016	02/26/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	02/22/2016	02/26/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			ISI - U1 INSERVICE INSPECTION		1
1	02/22/2016	03/06/2016	IP 7111108P	Inservice Inspection Activities - PWR	
			71003 - U2 LR COMMITMENT INSPECTION - PHASE 2		1
2	05/09/2016	05/13/2016	IP 71003	Post-Approval Site Inspection for License Renewal	
			BI - RADIOLOGICAL SAFETY - AIRBORNE		1
1,2	05/09/2016	05/13/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			BI - RADIOLOGICAL SAFETY - EXT EXPOSURE		1
1,2	08/22/2016	08/26/2016	IP 71124.04	Occupational Dose Assessment	
			ISFSI - ISFSI LOADING CAMPAIGN		1
1,2	08/22/2016	08/27/2016	IP 60855	Operation Of An ISFSI	
1,2	08/22/2016	08/27/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	

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

Enclosure

Calvert Cliffs
 Inspection / Activity Plan
 07/01/2015 - 06/30/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			TRI FI - TRIENNIAL FIRE INSPECTION		4
1,2	09/12/2016	09/16/2016	IP 7111105T	Fire Protection [Triennial]	
1,2	09/26/2016	09/30/2016	IP 7111105T	Fire Protection [Triennial]	
			EP - EP PROGRAM INSPECTION		1
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	
			BI - RADIOLOGICAL SAFETY - ALARA		1
1,2	10/03/2016	10/07/2016	IP 71124.02	Occupational ALARA Planning and Controls	
			TI-191 - FUKUSHMIA LESSONS-LEARNED		1
1,2	11/14/2016	11/18/2016	IP 2515/191	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
			BI - RADIOLOGICAL SAFETY - RAD HAZ & PIV		1
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	
			71124 - RADIATION SAFETY - INSTRUMENTS		1
1,2	01/09/2017	01/13/2017	IP 71124.05	Radiation Monitoring Instrumentation	
			71124 - RADIATION SAFETY - RETS		1
1,2	02/06/2017	02/10/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			7111108P - U2 INSERVICIE INSPECTION		1
1	02/21/2017	03/03/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			71124 - RADIATION SAFETY - RAD HAZ PIV		1
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	
			71124.08 - RADWASTE		1
1,2	04/10/2017	04/14/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			MODS - PERMANENT PLANT MODIFICATIONS		3
1,2	04/24/2017	04/28/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1,2	05/08/2017	05/12/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			7111107T - TRIENNIAL HEAT SINK		1
1,2	06/12/2017	06/16/2017	IP 7111107T	Heat Sink Performance	

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