UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 3, 2010

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, Inc.
Constellation Generation Group, LLC
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657-4702

SUBJECT: ANNUAL ASSESSMENT LETTER - CALVERT CLIFFS NUCLEAR POWER PLANT (REPORTS 05000317/2010001 AND 05000318/2010001)

Dear Mr. Gellrich:

On February 12, 2010, the NRC staff completed its performance review of Calvert Cliffs Nuclear Power Plant (Calvert Cliffs). Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2009. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only—Security Information" will include the security cornerstone review and resultant inspection plan.

Overall, Calvert Cliffs Units 1 and 2 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter at Calvert Cliffs Units 1 and 2 was within the Regulatory Response column of the NRC's Action Matrix, based on one finding having low to moderate safety significance (White). This finding involved Calvert Cliff's emergency action level table's fission product barrier matrix being incorrect resulting in a degraded risk significant planning standard function. On December 4, 2009, we completed a supplemental inspection pursuant to Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," and the inspection report (ML100150225)[1] was issued on January 15, 2010. The inspection revealed no additional findings of safety significance and closed the White Emergency Preparedness inspection finding. Therefore, this finding has been removed from consideration in the performance assessment process in the first quarter of 2010.

The enclosed inspection plan details the inspections, less those related to security, scheduled through June 30, 2011. In addition to baseline inspections, we plan on conducting an independent spent fuel storage installation (ISFSI) inspection. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review.

[1]Designation in parenthesis refers to an ADAMS accession number. Documents referenced in this letter are publicly available using the accession number in ADAMS.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Glenn Dentel of my staff at 610-337-5233 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

David C. Lew, Director
Division of Reactor Projects
Region I

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

Enclosure: Calvert Cliffs Inspection / Activity Plan

cc w/encl: Distribution via ListServ

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Sincerely,

/RA/

David C. Lew, Director
Division of Reactor Projects
Region I

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

Enclosure: Calvert Cliffs Inspection / Activity Plan

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OFFICE	RI/DRP		RI/DRP		RI/DRP	
NAME	NPerry/NP		GDentel/GTD		DLew/DCS	
DATE	02/22/2010		02/23/2010		03/01/2010	

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Calvert Cliffs
Inspection / Activity Plan
01/01/2010 - 06/30/2011

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			TI-177	**- MANAGING GAS ACCUMULATION IN ECCS**	3
1, 2	01/11/2010	01/15/2010	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
			71124	**- RADIATION SAFETY**	1
1, 2	01/25/2010	01/29/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	01/25/2010	01/29/2010	IP 71124.02	Occupational ALARA Planning and Controls	
			71124	**- RADIATION SAFETY**	1
1, 2	03/01/2010	03/05/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/01/2010	03/05/2010	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/01/2010	03/05/2010	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/01/2010	03/05/2010	IP 71124.04	Occupational Dose Assessment	
1, 2	03/01/2010	03/05/2010	IP 71124.05	Radiation Monitoring Instrumentation	
			7111108P	**- UNIT 1 INSERVICE INSPECTION**	1
1	03/01/2010	03/12/2010	IP 7111108P	Inservice Inspection Activities - PWR	
			TI-172	**- U1 TI 2515/172 DISSIMILAR METAL WELDS**	1
1	03/01/2010	03/12/2010	IP 2515/172	Reactor Coolant System Dissimiliar Metal Butt Welds	
			8/2EXAM	**- OPERATOR LICENSING INITIAL EXAMS**	4
1	06/28/2010	07/02/2010	U01770	FY10 - CALVERT CLIFFS UNIT 1&2 INITIAL OPERATOR LICENSING EXAM	
1	08/02/2010	08/13/2010	U01770	FY10 - CALVERT CLIFFS UNIT 1&2 INITIAL OPERATOR LICENSING EXAM	
			71124.05	**- RAD MONITORING INSTRUMENTS**	1
1, 2	05/03/2010	05/07/2010	IP 71124.05	Radiation Monitoring Instrumentation	
			71124.06	**- RAD GAS & LIQ EFFLUENTS SYSTEM**	1
1, 2	06/07/2010	06/11/2010	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			2515/173	**- INDUSTRY GROUND WATER INITIATIVE**	1
1, 2	06/07/2010	06/11/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
			ISFSI	**- ISFSI LOADING CAMPAIGN**	1
1, 2	07/12/2010	07/16/2010	IP 60855	Operation Of An ISFSI	
1, 2	07/12/2010	07/16/2010	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			EP PROGR	**- EP PROGRAM INSPECTION**	1
1, 2	08/02/2010	08/06/2010	IP 7111402	Radiological Environmental Monitoring Program	
1, 2	08/02/2010	08/06/2010	IP 7111403	Emergency Response Organization Augmentation Testing	
1, 2	08/02/2010	08/06/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	08/02/2010	08/06/2010	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	08/02/2010	08/06/2010	IP 71151-EP01	Drill/Exercise Performance	
1, 2	08/02/2010	08/06/2010	IP 71151-EP02	ERO Drill Participation	
1, 2	08/02/2010	08/06/2010	IP 71151-EP03	Alert & Notification System	

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

Calvert Cliffs
Inspection / Activity Plan
01/01/2010 - 06/30/2011

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			TRI FIRE	**- TRIENNIAL FIRE PROTECTION INSPECTION**	3
1, 2	11/15/2010	11/19/2010	IP 7111105T	Fire Protection [Triennial]	
1, 2	11/29/2010	12/03/2010	IP 7111105T	Fire Protection [Triennial]	
			71124	**- RAD SAFETY - RAD HAZZARD/ALARA & ISFSI**	1
1, 2	12/06/2010	12/10/2010	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1, 2	12/06/2010	12/10/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	12/06/2010	12/10/2010	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	12/06/2010	12/10/2010	IP 71151	Performance Indicator Verification	
			71124.08	**- RAD MATERIAL AND TRANSPORTATION**	1
1, 2	01/24/2011	01/28/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			2515/172	**- TI 2515/172 RCS DM WELDS**	1
2	02/28/2011	03/11/2011	IP 2515/172	Reactor Coolant System Dissimiliar Metal Butt Welds	
			7111108P	**- U2 INSERVICE INSPECTION**	1
2	02/28/2011	03/11/2011	IP 7111108P	Inservice Inspection Activities - PWR	
			71124.01	**- RAD HAZZARD ASSESS OUT, ALARA, AIR, DOSE**	1
1, 2	03/07/2011	03/11/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/07/2011	03/11/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/07/2011	03/11/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/07/2011	03/11/2011	IP 71124.04	Occupational Dose Assessment	
1, 2	03/07/2011	03/11/2011	IP 71124.05	Radiation Monitoring Instrumentation	
			7111107T	**- TRIENNIAL HEAT SINK**	1
1	05/16/2011	05/20/2011	IP 7111107T	Heat Sink Performance	
			7111107T	**- TRIENNIAL HEAT SINK**	1
2	05/16/2011	05/20/2011	IP 7111107T	Heat Sink Performance	
			7111117	**- PERMANENT PLANT MODIFICATIONS**	3
1, 2	06/27/2011	07/01/2011	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	

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