



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

September 1, 2009

Mr. Charles G. Pardee
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer, Exelon Nuclear
4300 Winfield Rd
Warrenville, IL 60555

**SUBJECT: MID-CYCLE PERFORMANCE ASSESSMENT LETTER –
PEACH BOTTOM ATOMIC POWER STATION**

Dear Mr. Pardee:

On August 13, 2009, the NRC staff completed its performance review of Peach Bottom Atomic Power Station (PBAPS). Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2008 through June 30, 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.

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

Plant performance for the most recent quarter at Peach Bottom Units 2 and 3 was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

In our annual assessment letter dated March 4, 2009 (ML090620792)¹, we informed you of an existing cross-cutting theme in the aspect of Human Performance-Resources-Procedure Adequacy (H.2(c))². During the past six months, the NRC staff reviewed your plans and corrective actions for this cross-cutting theme. To date, these actions appear to be adequate and effective given there has been only one new finding with a cross-cutting aspect of H.2(c) in the last two quarters. Since there is one inspection finding for the current twelve month assessment period with a cross-cutting aspect in H.2(c), the cross-cutting theme no longer exists.

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

² This is a descriptor that correlates to this cross-cutting aspect in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

Additionally, on January 6, 2009, the staff issued a severity level III Notice of Violation (NOV), with a \$65,000 civil penalty, in accordance with the NRC's Enforcement Policy (ML083530084). This NOV and civil penalty were the final NRC actions with regard to the inattentive security officer issue which was discovered in September 2007. No further followup actions are planned, since your corrective actions and NRC's assessment thereof have already been completed, documented, and are available to the public (ML073090061, ML073550590, ML072920283, ML080440012, ML081970338, ML082410183, and ML082420606).

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2010. 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 end-of-cycle review.

In accordance with 10 CFR Part 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).

As you may know, the NRC is currently evaluating the scope and frequency of all the baseline inspection procedures as part of our biennial review of the ROP. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at (610) 337-5120 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Paul G. Krohn, Chief
Division of Reactor Projects
Projects Branch 4

Docket Nos. 50-277, 50-278
License Nos. NPF-44, NPF-56

Enclosure: Peach Bottom Inspection/ Activity Plan

cc w/encl:

C. Crane, President and Chief Operating Officer, Exelon Corporation
M. Pacilio, Chief Operating Officer, Exelon Nuclear
W. Maguire, Site Vice President, Peach Bottom
J. Grimes, Acting Senior Vice President, Mid-Atlantic
R. Hovey, Senior Vice President, Nuclear Oversight
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M. Griffen, Maryland Department of Environment
Public Service Commission of Maryland, Engineering Division
Board of Supervisors, Peach Bottom Township
B. O'Connor, Council Administrator of Harford County Council
Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance
E. Epstein, TMI - Alert
J. Johnsrud, National Energy Committee, Sierra Club
Mr. & Mrs. Kip Adams
R. Fletcher, Dir, MD Environmental Program Manager, Radiological Health Program
Director, Nuclear Safety Project, Union of Concerned Scientists
R. Ayers, Deputy Mgr, Harford County Div of Emergency Operations
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S. Ayers, Emergency Planner, Harford County Div of Emergency Operations
R. Brooks, Cecil County Dept of Emergency Services

Peach Bottom
Inspection / Activity Plan
07/01/2009 - 12/31/2010

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			EP - EP ANNUAL REPORT		3
2,3	01/01/2009	12/31/2009	IP 7111406	Drill Evaluation	
			CLOSEOUT - NOV FOLLOWUP AND CLOSEOUT INSPECTION		2
2,3	06/01/2009	12/31/2009	IP 92702	Followup On Corrective Actions For Violations And Deviations	
			71152B - PI&R BIENNIAL TEAM		5
2,3	08/03/2009	08/07/2009	IP 71152B	Identification and Resolution of Problems	
			EP PROGR - EP PROGRAM INSPECTION		2
2,3	07/27/2009	07/31/2009	IP 7111402	Alert and Notification System Testing	
2,3	07/27/2009	07/31/2009	IP 7111403	Emergency Response Organization Augmentation Testing	
2,3	07/27/2009	07/31/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2,3	07/27/2009	07/31/2009	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
2,3	07/27/2009	07/31/2009	IP 71151	Performance Indicator Verification	
			71122 - REMP		2
2,3	07/27/2009	07/31/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
			12/7EXAM - PEACH BOTTOM EXAM		5
2	11/02/2009	11/06/2009	U01792	FY 10 - PEACH BOTTOM INITIAL OPERATOR LICENSING EXAM	
2	12/07/2009	12/16/2009	U01792	FY 10 - PEACH BOTTOM INITIAL OPERATOR LICENSING EXAM	
			71121 - OCC RAD SAFETY		2
2,3	08/17/2009	08/21/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2,3	08/17/2009	08/21/2009	IP 7112102	ALARA Planning and Controls	
2,3	08/17/2009	08/21/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
			7111108G - U3 INSERVICE INSPECTION		1
3	09/21/2009	09/25/2009	IP 7111108G	Inservice Inspection Activities - BWR	
			71121 - OCC RAD SAFETY		2
2,3	09/21/2009	09/25/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2,3	09/21/2009	09/25/2009	IP 7112102	ALARA Planning and Controls	
2,3	09/21/2009	09/25/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
			71121 - OCC RAD SAFETY & ISFSI		1
2,3	11/16/2009	11/20/2009	IP 60855	Operation Of An ISFSI	
2,3	11/16/2009	11/20/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2,3	11/16/2009	11/20/2009	IP 7112102	ALARA Planning and Controls	
2,3	11/16/2009	11/20/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
2,3	11/16/2009	11/20/2009	IP 71151	Performance Indicator Verification	
			06/07EXM - LSRO OPERATOR LICENSING EXAM		3
2	06/07/2010	06/18/2010	U01795	FY-10 PEACH BOTTOM LSRO INITIAL OPERATOR LICENSING EXAM	

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

Peach Bottom
Inspection / Activity Plan
07/01/2009 - 12/31/2010

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			MODS - PERMANENT PLANT MODIFICATIONS		6
2, 3	03/01/2010	03/05/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			7111107T - TRIENNIAL HEAT SINK		1
2, 3	05/17/2010	05/21/2010	IP 7111107T	Heat Sink Performance	
			RETS - EFFULENTS		1
2, 3	06/14/2010	06/18/2010	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
			TI-173 - GROUND WATER TI		1
2, 3	06/14/2010	06/18/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
			EP EX - EP EXERCISE EVALUATION		4
2, 3	06/21/2010	06/25/2010	IP 7111401	Exercise Evaluation	
2, 3	06/21/2010	06/25/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2, 3	06/21/2010	06/25/2010	IP 71151-EP01	Drill/Exercise Performance	
2, 3	06/21/2010	06/25/2010	IP 71151-EP02	ERO Drill Participation	
2, 3	06/21/2010	06/25/2010	IP 71151-EP03	Alert & Notification System	
			7111108G - U2 INSERVICE INSPECTION		1
2	09/20/2010	09/24/2010	IP 7111108G	Inservice Inspection Activities - BWR	
			12/6EXAM - OPERATOR LICENSING INITIAL EXAMS		4
2	12/20/2010	12/24/2010	U01769	FY11 - PEACH BOTTOM UNITS 2&3 INITIAL OPERATOR LICENSING EXAM	
			TI-177 - MANAGING GAS ACCUMULATION IN ECCS		5
2, 3	11/29/2010	12/03/2010	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	

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