



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

September 2, 2008

Mr. Charles G. Pardee  
Chief Nuclear Officer (CNO) and Senior Vice President  
Exelon Generation Company, LLC  
Chief Nuclear Officer (CNO)  
AmerGen Energy Company, LLC  
200 Exelon Way  
Kennett Square, PA 19348

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

Dear Mr. Pardee:

On August 7, 2008, 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, 2007, through June 30, 2008. 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.

With the exception of information already available in the public domain, this 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.

Overall, Peach Bottom Atomic Power Station Units 2 and 3 operated in a manner that preserved public health and safety and fully met all reactor and radiation safety cornerstone objectives. For the six cornerstones within the reactor and radiation safety strategic performance areas, 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, for the reactor and radiation safety cornerstones, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility. In addition to baseline inspections, we plan to conduct independent spent fuel storage facility inspections at Peach Bottom.

While plant performance for the most recent quarter is within the Licensee Response column of the Action Matrix for the reactor and radiation safety strategic performance areas, there was a security-related finding of low to moderate safety significance (White) assigned to the last quarter of 2007. Specifically, the security-related finding had a documented cross-cutting aspect in the area of safety conscious work environment (SCWE) because supervision did not encourage the free flow of information related to raising safety concerns; and security supervisors who had information regarding inattentive officers did not respond to employee safety concerns in an open, honest, and non-defensive manner (Inspection Manual Chapter 0305, S.1(a)).

In evaluating the licensee scope of efforts and progress in addressing this SCWE cross-cutting aspect, significant Agency actions have been taken to address inattentiveness and SCWE issues including Augmented Inspection Teams (ML073090061 and ML073550590), a Confirmatory Action Letter (ML072920283), an ROP Deviation Memorandum (ML073320344), an inspection of the transition from a contract to an in-house security force (ML080720030), an inspection of the corrective actions in response to the inattentive security officer events (ML081090311), an inspection of your activities directly related to safety conscious work environment (ML081490058), and an assessment of the status of other commitments documented in the Confirmatory Action Letter (ML081970338). These Agency actions provided the regulatory framework to monitor your progress in addressing SCWE issues at Peach Bottom.

The Confirmatory Action Letter discussed above was closed on August 28, 2008, (ML082410183) based on multiple NRC inspections that evaluated the scope, status of completion, and effectiveness of the committed actions; reasonable assurance that the Peach Bottom facility will continue to be operated safely; and adequate corrective actions to prevent reoccurrence of the underlying issues that led to the inattentive security officer events. Regarding the ROP Deviation Memorandum issued on November 23, 2007, the NRC has independently verified satisfactory completion of Exelon's corrective actions as described in the inattentive security officer root cause evaluation. Therefore, the Deviation Memorandum for the inattentive security officer events will be allowed to expire in December 2008.

The NRC determined, through independent inspection activities, that Exelon's response to the SCWE issue identified in September 2007 has been appropriate. Specifically, inspectors verified that Exelon had completed a thorough root cause evaluation and implemented numerous corrective actions including multiple SCWE surveys, training activities, and self-assessments. As a result, the NRC has concluded that your scope of efforts and progress in response to the White finding and concerns in the area of safety conscious work environment, have been acceptable. Therefore, consistent with our ROP assessment process, the NRC has concluded that a substantive cross-cutting issue in the area of safety conscious work environment does not exist at this time. The NRC will continue to monitor Exelon's progress in addressing SCWE issues through baseline inspections.

Notwithstanding the progress related to SCWE issues, the staff identified five green findings and one White finding (related to the inattentive security officer event) for the current 12-month assessment period with documented cross-cutting aspects in the area of human performance. A cross-cutting theme regarding resources and complete, accurate and up-to-date design documentation, and procedures (H.2(c)) was associated with four of the green findings. In evaluating the scope of efforts and progress in addressing the cross-cutting theme, the staff determined that the licensee appropriately identified the cross-cutting theme; recognized the impacts of the cross-cutting theme in multiple departments; and has scheduled a range of corrective actions for which additional time is needed to evaluate effectiveness. Therefore, consistent with our ROP assessment process, the NRC has concluded that a substantive cross-cutting issue in the area of human performance does not exist at this time. The NRC will continue to monitor Exelon's progress in addressing the human performance cross-cutting theme through baseline inspections.

In addition, a supplemental inspection (conducted in accordance with ROP procedure 95001) for the White security-related finding was completed on July 25, 2008, and the inspection report was issued on August 29, 2008 (ML082420606). The 95001 supplemental inspection team did not identify any findings of significance and confirmed that Exelon's response to the

inattentiveness issues identified in September 2007 has been appropriate. Therefore, the white finding will be closed and removed from consideration in the ROP assessment process following the 3<sup>rd</sup> quarter of 2008.

Notwithstanding closure of the ROP white finding, the NRC continues to review and evaluate violations associated with the inattentive security officer events. As noted in the February 12, 2008, letter (ML080440012), any traditional enforcement action related to the violations will be handled by separate correspondence.

The enclosed inspection plan details the inspections, except those related to physical protection, scheduled through December 31, 2009. 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 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 Paul Krohn at 610-337-5120 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

Samuel J. Collins  
Regional Administrator

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

Enclosure: Peach Bottom Inspection/ Activity Plan

cc w/encl:

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**Peach Bottom**  
**Inspection / Activity Plan**  
**08/01/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>711111B - LSRO REQUAL INSPECTION</b>		<b>4</b>			
2,3	IP 711111B	Licensed Operator Requalification Program		08/03/2008	08/08/2008	Baseline Inspections
	<b>60855.1 - ISFSI SUPPORT</b>		<b>1</b>			
2,3	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		07/14/2008	08/01/2008	Other Routine
	<b>12/08EXM - U2&amp;3 OPERATOR LICENSING INITIAL EXAMS</b>		<b>4</b>			
2	U01692	FY09 - PEACH BOTTOM UNIT 2 & 3 INITIAL OPERATOR EXAM		11/10/2008	11/14/2008	Not Applicable
2	U01692	FY09 - PEACH BOTTOM UNIT 2 & 3 INITIAL OPERATOR EXAM		12/08/2008	12/19/2008	Not Applicable
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		08/18/2008	08/22/2008	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		08/18/2008	08/22/2008	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		08/18/2008	08/22/2008	Baseline Inspections
	<b>7111108G - U2 INSERVICE INSPECTION</b>		<b>1</b>			
2	IP 7111108G	Inservice Inspection Activities - BWR		09/22/2008	09/26/2008	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		09/22/2008	09/26/2008	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		09/22/2008	09/26/2008	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		09/22/2008	09/26/2008	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		11/10/2008	11/14/2008	Other Routine
2,3	IP 7112101	Access Control to Radiologically Significant Areas		11/10/2008	11/14/2008	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		11/10/2008	11/14/2008	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		11/10/2008	11/14/2008	Baseline Inspections
2,3	IP 71151-OR01	Occupational Exposure Control Effectiveness		11/10/2008	11/14/2008	Baseline Inspections
2,3	IP 71151-PR01	RETS/ODCM Radiological Effluent		11/10/2008	11/14/2008	Baseline Inspections
	<b>TI 176 - TI 176</b>		<b>1</b>			
2,3	IP 2515/176	Emergency Diesel Generator Tech Spec Surveillance Requirements Re: Endurance & Margin		12/15/2008	12/19/2008	Generic Safety Inspecti
	<b>711111B - BIENNIAL REQUAL INSP WITH P/F RESULTS</b>		<b>3</b>			
2,3	IP 711111B	Licensed Operator Requalification Program		03/02/2009	03/13/2009	Baseline Inspections
	<b>TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION</b>		<b>3</b>			
2,3	IP 7111105T	Fire Protection [Triennial]		03/16/2009	03/20/2009	Baseline Inspections
2,3	IP 7111105T	Fire Protection [Triennial]		03/30/2009	04/03/2009	Baseline Inspections
	<b>ISFSI - ANNUAL SAMPLE - ISFSI INSPECTION</b>		<b>1</b>			
3	IP 60855	Operation Of An ISFSI		04/01/2009	06/30/2009	Other Routine
	<b>71121 - OCC RAD</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		04/20/2009	04/24/2009	Baseline Inspections

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

**Peach Bottom**  
**Inspection / Activity Plan**  
**08/01/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>71121 - OCC RAD</b>		<b>1</b>			
2,3	IP 7112102	ALARA Planning and Controls		04/20/2009	04/24/2009	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/20/2009	04/24/2009	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		07/13/2009	07/17/2009	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		07/13/2009	07/17/2009	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		07/13/2009	07/17/2009	Baseline Inspections
	<b>71152B - PI&amp;R BIENNIAL TEAM</b>		<b>4</b>			
2,3	IP 71152B	Identification and Resolution of Problems		07/20/2009	07/24/2009	Baseline Inspections
	<b>71122 - REMP</b>		<b>1</b>			
2,3	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program		07/27/2009	07/31/2009	Baseline Inspections
	<b>71152B - PI&amp;R BIENNIAL TEAM</b>		<b>4</b>			
2,3	IP 71152B	Identification and Resolution of Problems		08/03/2009	08/07/2009	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7111101	Adverse Weather Protection		09/21/2009	09/25/2009	Baseline Inspections
2,3	IP 7112101	Access Control to Radiologically Significant Areas		09/21/2009	09/25/2009	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		09/21/2009	09/25/2009	Baseline Inspections
	<b>7111108G - U3 INSERVICE INSPECTION</b>		<b>1</b>			
3	IP 7111108G	Inservice Inspection Activities - BWR		09/28/2009	10/02/2009	Baseline Inspections
	<b>71121 - OCC RAD SAFETY &amp; ISFSI</b>		<b>1</b>			
2,3	IP 60855	Operation Of An ISFSI		11/16/2009	11/20/2009	Other Routine
2,3	IP 7112101	Access Control to Radiologically Significant Areas		11/16/2009	11/20/2009	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		11/16/2009	11/20/2009	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		11/16/2009	11/20/2009	Baseline Inspections
2,3	IP 71151	Performance Indicator Verification		11/16/2009	11/20/2009	Baseline Inspections