

March 2, 2005

Mr. Christopher M. Crane  
President and CNO  
Exelon Nuclear  
Exelon Generation Company, LLC  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: Annual Assessment Letter - Peach Bottom Atomic Power Station (Report  
05000277/2005001 and 05000278/2005001)

Dear Mr. Crane:

On February 7, 2005, the NRC staff completed its end-of-cycle plant performance assessment of Peach Bottom Atomic Power Station (Peach Bottom). The end-of-cycle review for Peach Bottom involved the participation of the reactor technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2004. 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 so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

This performance review and enclosed inspection plan do not include physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Overall, Peach Bottom operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter 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, currently we plan to conduct only baseline inspections at your facility through September 30, 2006. However, one PI for Peach Bottom Unit 2 (number of scrams with a loss of normal heat removal) is still being evaluated by the NRC staff and a separate assessment followup letter may be issued, if appropriate, following completion of the staff's review.

While plant performance for the most recent quarter is within the licensee response column of the Action Matrix, there was a safety significant inspection finding and a performance indicator during the first three quarters of the assessment cycle. In our letter dated February 3, 2004, we forwarded the final significance determination for an inspection finding of low-to-moderate safety significance (White) in the Mitigating System Cornerstone for an inoperable emergency diesel generator (EDG). In the first quarter of 2004 there was a White PI in the Initiating Events Cornerstone for Unit 2 exceeding the number of Unplanned Scrams per 7,000 Critical Hours. We performed the supplemental inspections for the White inspection finding and the PI during this assessment period and these issues are closed.

In our mid-cycle letter dated August 30, 2004, we advised you that a substantive cross-cutting

issue still existed in the area of Problem Identification and Resolution involving inadequate corrective action for known equipment problems. The NRC staff has determined that a substantive cross-cutting issue no longer exists due to the reduction in frequency of findings related to this area.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through September 30, 2006. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved 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 meeting.

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 Dr. Mohamed Shanbaky, Chief, Projects Branch 4 at (610 337-5209) with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

A. Randolph Blough, Director  
Division of Reactor Projects

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

Enclosure: Peach Bottom Inspection/Activity Plan

cc w/encl:

Chief Operating Officer, Exelon Generation Company, LLC  
Site Vice President, Peach Bottom Atomic Power Station  
Plant Manager, Peach Bottom Atomic Power Station  
Regulatory Assurance Manager - Peach Bottom  
Senior Vice President, Nuclear Services  
Vice President, Mid-Atlantic Operations  
Vice President - Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director, Licensing and Regulatory Affairs, Exelon Generation Company, LLC  
Manager, Licensing - Peach Bottom Atomic Power Station  
Manager License Renewal

Vice President, General Counsel and Secretary  
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Director, Nuclear Training  
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D. Allard, Director, Pennsylvania Bureau of Radiation Protection  
R. Fletcher, Department of Environment, Radiological Health Program  
Commonwealth of Pennsylvania (c/o R. Janati, Chief, Division of Nuclear Safety,  
Pennsylvania Bureau of Radiation Protection)  
Public Service Commission of Maryland, Engineering Division  
Board of Supervisors, Peach Bottom Township  
B. Ruth, Council Administrator of Harford County Council  
Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance  
TMI - Alert (TMIA)  
J. Johnsrud, National Energy Committee, Sierra Club  
Mr. & Mrs. Kip Adams  
T. Snyder, Director, Air and Radiation Management Administration,  
Maryland Department of the Environment (SLO)

Mr. Christopher M. Crane

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DOCUMENT NAME: S:\ROP5 End of Cycle Review\Branch 4\Peach Bottom ROP5 Annual Assessment Letter Rev1.wpd

**SISP Review Complete: mms (Reviewer's Initials)**

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OFFICE	RI:DRP		RI:DRP		RI:DRP				
NAME	Burritt		Shanbaky		Blough				
DATE	02/24/05		02/24/05		03/01/05				

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**Peach Bottom**  
**Inspection / Activity Plan**  
**03/01/2005 - 09/30/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>711111B - LO REQUAL PROG. &amp; PASS/FAIL RESULTS</b>		<b>3</b>			
2,3	IP 711111B	Licensed Operator Requalification Program		03/14/2005	03/17/2005	Baseline Inspections
2,3	IP 711111B	Licensed Operator Requalification Program		03/21/2005	03/25/2005	Baseline Inspections
	<b>MODS - MODS &amp; 50.59</b>		<b>4</b>			
2,3	IP 7111102	Evaluation of Changes, Tests, or Experiments		03/14/2005	03/18/2005	Baseline Inspections
2,3	IP 711117B	Permanent Plant Modifications		03/14/2005	03/18/2005	Baseline Inspections
	<b>6/13 EXM - PB/LM (LSRO) O.L. INITIAL EXAM</b>		<b>2</b>			
2	U01574	LIMERICK/PEACH BOTTOM LSRO EXAM (6/5-10/05)		05/16/2005	05/20/2005	Not Applicable
2	U01574	LIMERICK/PEACH BOTTOM LSRO EXAM (6/5-10/05)		06/13/2005	06/24/2005	Not Applicable
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		04/25/2005	04/29/2005	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		04/25/2005	04/29/2005	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/25/2005	04/29/2005	Baseline Inspections
	<b>71152B - PI&amp;R</b>		<b>4</b>			
2,3	IP 71152B	Identification and Resolution of Problems		07/11/2005	07/15/2005	Baseline Inspections
2,3	IP 71152B	Identification and Resolution of Problems		07/25/2005	07/29/2005	Baseline Inspections
	<b>7112203 - PUB RAD SAFETY - REMP</b>		<b>1</b>			
2,3	IP 7112203	Radiological Environmental Monitoring Program		07/25/2005	07/29/2005	Baseline Inspections
	<b>71114 - EP PROGRAM INSP &amp; PI VERIFICATION</b>		<b>1</b>			
2,3	IP 7111402	Alert and Notification System Testing		07/25/2005	07/29/2005	Baseline Inspections
2,3	IP 7111403	Emergency Response Organization Augmentation Testing		07/25/2005	07/29/2005	Baseline Inspections
2,3	IP 7111404	Emergency Action Level and Emergency Plan Changes		07/25/2005	07/29/2005	Baseline Inspections
2,3	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		07/25/2005	07/29/2005	Baseline Inspections
2,3	IP 71151	Performance Indicator Verification		07/25/2005	07/29/2005	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		08/08/2005	08/12/2005	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		08/08/2005	08/12/2005	Baseline Inspections
2,3	IP 7112202	Radioactive Material Processing and Transportation		08/08/2005	08/12/2005	Baseline Inspections
	<b>7111108G - INSERVICE INSPECTION - U3</b>		<b>1</b>			
3	IP 7111108G	Inservice Inspection Activities - BWR		09/26/2005	09/30/2005	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		09/26/2005	09/30/2005	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		09/26/2005	09/30/2005	Baseline Inspections
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		11/14/2005	11/18/2005	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**  
**03/01/2005 - 09/30/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>71121 - OCC RAD SAFETY</b>		<b>1</b>			
2,3	IP 7112102	ALARA Planning and Controls		11/14/2005	11/18/2005	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		11/14/2005	11/18/2005	Baseline Inspections
2,3	IP 71151	Performance Indicator Verification		11/14/2005	11/18/2005	Baseline Inspections
	<b>7111111B - LSRO INSPECTION</b>		<b>1</b>			
2,3	IP 7111111B	Licensed Operator Requalification Program		11/15/2005	11/19/2005	Baseline Inspections
	<b>TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION</b>		<b>3</b>			
2,3	IP 7111105T	Fire Protection		03/13/2006	03/18/2006	Baseline Inspections
2,3	IP 7111105T	Fire Protection		03/27/2006	03/31/2006	Baseline Inspections
	<b>7111401 - EXERCISE EVALUATION &amp; EP PI VERIFICATION</b>		<b>2</b>			
2,3	IP 7111401	Exercise Evaluation		04/24/2006	04/28/2006	Baseline Inspections
2,3	IP 71151	Performance Indicator Verification		04/24/2006	04/28/2006	Baseline Inspections
	<b>SSDI - SSDI</b>		<b>7</b>			
2,3	IP 7111121	Safety System Design and Performance Capability		06/05/2006	06/09/2006	Baseline Inspections
2,3	IP 7111121	Safety System Design and Performance Capability		06/19/2006	06/23/2006	Baseline Inspections
	<b>711112B - MAINTENANCE RULE</b>		<b>1</b>			
2,3	IP 711112B	Maintenance Effectiveness		07/17/2006	07/21/2006	Baseline Inspections
	<b>7111107B - HEAT SINK</b>		<b>2</b>			
2,3	IP 7111107B	Heat Sink Performance		07/24/2006	07/28/2006	Baseline Inspections
	<b>7111108G - INSERVICE INSPECTION - UNIT 2</b>		<b>1</b>			
2	IP 7111108G	Inservice Inspection Activities - BWR		09/18/2006	09/22/2006	Baseline Inspections