



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

August 31, 2007

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

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -
PEACH BOTTOM ATOMIC POWER STATION**

Dear Mr. Crane:

On August 15, 2007, the NRC staff completed its performance review of Peach Bottom Atomic Power Station for the first half of the calendar year 2007 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve months. 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 "Official Use Only - Security Information" will include the security cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter of 2007 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 significant (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. We also plan on conducting an Independent Spent Fuel Storage Installation at Operating Plants inspection during May 2008.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2008. 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).

The NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the changes 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
Reactor Projects Branch 4
Division of Reactor Projects

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

Enclosure: Peach Bottom Inspection/ Activity Plan

cc w/encl:

Site Vice President, Peach Bottom Atomic Power Station
Plant Manager, Peach Bottom Atomic Power Station
Regulatory Assurance Manager - Peach Bottom
Associate General Counsel, Exelon Generation Company
Manager, Financial Control & Co-Owner Affairs
Manager Licensing, PBAPS
Director, Training
Correspondence Control Desk
Director, Bureau of Radiation Protection (PA)
R. McLean, Power Plant and Environmental Review Division (MD)
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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
Vice President, Licensing and Regulatory Affairs
Vice President, Operations Mid-Atlantic
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Director, Licensing and Regulatory Affairs
J. Fewell, Assistant General Counsel
Institute of Nuclear Power Operations (INPO)

The NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the changes 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,
/ral
Paul G. Krohn, Chief
Reactor Projects Branch 4
Division of Reactor Projects

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

Enclosure: Peach Bottom Inspection/ Activity Plan

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NAME	TSetzer/TS		PKrohn/PGK			
DATE	08/ 28/07		08/28/07			

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Peach Bottom
Inspection / Activity Plan
07/01/2007 - 12/31/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	36801	- ORGANIZATION AND MANAGEMENT	1			
1	IP 36801	Organization, Management, And Cost Controls At Permanently Shutdown Reactors		07/03/2007	07/05/2007	Other Routine
	40801	- SELF ASSESSMENTS & CAP	1			
1	IP 40801	Self-Assessment, Auditing, And Corrective Action At Permanently Shutdown Reactors		07/03/2007	07/05/2007	Other Routine
	84750	- RADWSTE TRTMT & EFF & ENV	1			
1	IP 84750	Radioactive Waste Treatment, And Effluent And Environmental Monitoring		07/03/2007	07/05/2007	Other Routine
	86750	- RADWSTE MNGT & TRANS RAM	1			
1	IP 86750	Solid Radioactive Waste Management And Transportation Of Radioactive Materials		07/03/2007	07/05/2007	Other Routine
	83750	- OCCUPATIONAL RADIATION EXPOSURE	1			
1	IP 83750	Occupational Radiation Exposure		07/03/2007	09/30/2007	Other Routine
	7112203	- PUB RAD SAFETY - REMP	1			
2,3	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P		07/30/2007	08/03/2007	Baseline Inspections
	7111111B	- LSRO REQUAL PROG. OPTEST @PB +PF REVIEW	2			
2,3	IP 7111111B	Licensed Operator Requalification Program		11/01/2007	11/01/2007	Baseline Inspections
	01/07EXM	- INITIAL LSRO OPERATOR EXAM	3			
2	U01631	PEACH BOTTOM LSRO EXAM (FY08)		11/19/2007	11/23/2007	Not Applicable
2	U01631	PEACH BOTTOM LSRO EXAM (FY08)		01/07/2008	01/08/2008	Not Applicable
	71121	- OCC RAD SAFETY	1			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		09/10/2007	09/14/2007	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		09/10/2007	09/14/2007	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		09/10/2007	09/14/2007	Baseline Inspections
	7111108G	- U3 IN-SERVICE INSPECTION	1			
3	IP 7111108G	Inservice Inspection Activities - BWR		10/01/2007	10/05/2007	Baseline Inspections
	71121	- OCC RAD SAFETY	1			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		10/08/2007	10/12/2007	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		10/08/2007	10/12/2007	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		10/08/2007	10/12/2007	Baseline Inspections
	71121	- OCC RAD SAFETY	1			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		12/10/2007	12/14/2007	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		12/10/2007	12/14/2007	Baseline Inspections
2,3	IP 71151	Performance Indicator Verification		12/10/2007	12/14/2007	Baseline Inspections
	DECOM	- PEACH BOTTOM UNIT 1- JULY 2008 DECOM	1			
1	IP 36801	Organization, Management, And Cost Controls At Permanently Shutdown Reactors		01/01/2008	01/05/2008	Other Routine
1	IP 40801	Self-Assessment, Auditing, And Corrective Action At Permanently Shutdown Reactors		01/01/2008	01/05/2008	Other Routine
1	IP 83750	Occupational Radiation Exposure		01/01/2008	01/05/2008	Other Routine

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

Peach Bottom
Inspection / Activity Plan
07/01/2007 - 12/31/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	DECOM	- PEACH BOTTOM UNIT 1- JULY 2008 DECOM	1			
1	IP 84750	Radioactive Waste Treatment, And Effluent And Environmental Monitoring		01/01/2008	01/05/2008	Other Routine
1	IP 86750	Solid Radioactive Waste Management And Transportation Of Radioactive Materials		01/01/2008	01/05/2008	Other Routine
	71121	- OCC RAD SAFETY	1			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		02/25/2008	02/29/2008	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		02/25/2008	02/29/2008	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		02/25/2008	02/29/2008	Baseline Inspections
	7111121	- CDBI	8			
2,3	IP 7111121	Component Design Bases Inspection		03/10/2008	03/14/2008	Baseline Inspections
2,3	IP 7111121	Component Design Bases Inspection		03/24/2008	03/28/2008	Baseline Inspections
2,3	IP 7111121	Component Design Bases Inspection		03/31/2008	04/04/2008	Baseline Inspections
	7111111B	- LSRO REQUAL INSPECTION	4			
2,3	IP 7111111B	Licensed Operator Requalification Program		06/02/2008	06/05/2008	Baseline Inspections
	EP	- EP EXERCISE EVALUATION	4			
2,3	IP 7111401	Exercise Evaluation		04/21/2008	04/25/2008	Baseline Inspections
2,3	IP 7111404	Emergency Action Level and Emergency Plan Changes		04/21/2008	04/25/2008	Baseline Inspections
2,3	IP 71151-EP01	Drill/Exercise Performance		04/21/2008	04/25/2008	Baseline Inspections
2,3	IP 71151-EP02	ERO Drill Participation		04/21/2008	04/25/2008	Baseline Inspections
2,3	IP 71151-EP03	Alert & Notification System		04/21/2008	04/25/2008	Baseline Inspections
	ISFSI	- MAY 2008 UNIT 2&3 ISFSI LOADING CAMPAIGN	1			
2,3	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		05/01/2008	05/31/2008	Other Routine
	7112201	- PUB RAD SAFETY - RETS	1			
2,3	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		05/12/2008	05/16/2008	Baseline Inspections
	12/08EXM	- U2&3 INITIAL OPERATOR LICENSING EXAM	4			
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
	7111107B	- HEAT SINK	1			
2,3	IP 7111107B	Heat Sink Performance		08/11/2008	08/15/2008	Baseline Inspections
	7111108G	- U2 INSERVICE INSPECTION	1			
2	IP 7111108G	Inservice Inspection Activities - BWR		09/29/2008	10/03/2008	Baseline Inspections