



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

March 2, 2007

Mr. Christopher M. Crane
President and CNO
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way KSA 3-E
Kennett Square, PA 19348

SUBJECT: ANNUAL ASSESSMENT LETTER - PEACH BOTTOM ATOMIC POWER
STATION (REPORT 05000277/2007001 AND 05000278/2007001)

Dear Mr. Crane:

On February 12, 2007, the NRC staff completed its performance review of Peach Bottom Atomic Power Station (Peach Bottom). Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2006. 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 physical protection information. A separate letter designated and marked "Exempt from Public Disclosure in accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Overall, Peach Bottom Units 2 and 3 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, 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. We also plan to conduct an inspection of your activities related to an Independent Spent Fuel Storage Installation.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 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 mid-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 me at 610-337-5209 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Mel Gray, Chief
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:

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
Associate General Counsel, Exelon Generation Company
Manager, Financial Control & Co-Owner Affairs
Vice President, Licensing and Regulatory Affairs
Senior Vice President, Mid-Atlantic
Senior Vice President - Operations Support
Senior Vice President, Nuclear Services
Director, Licensing and Regulatory Affairs
J. Bradley Fewell, Assistant General Counsel, Exelon Nuclear
Manager Licensing, PBAPS
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Director, Bureau of Radiation Protection, Department of Environmental Protection
R. McLean, Power Plant and Environmental Review Division (MD)
G. Aburn, Maryland Department of Environment
T. Snyder, Director, Air and Radiation Management Administration,
Maryland Department of the Environment (SLO, MD)
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
E. Epstein, TMI Alert
R. Fletcher, Department of Environment, Radiological Health Program

Peach Bottom
Inspection / Activity Plan
01/01/2007 - 06/30/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	2/5EXAM	- OPERATOR LICENSING INITIAL EXAMS	3			
2	U01612	PEACH BOTTOM, UNIT 2&3 INITIAL EXAM (2/07)		01/08/2007	01/12/2007	Not Applicable
2	U01612	PEACH BOTTOM, UNIT 2&3 INITIAL EXAM (2/07)		02/05/2007	02/16/2007	Not Applicable
	7111111B	- L.O.(PWR.) REQUAL. PROG. + P/F REVIEW	4			
2,3	IP 7111111B	Licensed Operator Requalification Program		02/19/2007	02/23/2007	Baseline Inspections
2,3	IP 7111111B	Licensed Operator Requalification Program		02/26/2007	03/02/2007	Baseline Inspections
	71122	- PUBLIC RAD PROT - RETS	1			
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		02/12/2007	02/16/2007	Baseline Inspections
2,3	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/12/2007	02/16/2007	Baseline Inspections
2,3	IP 7112202	Radioactive Material Processing and Transportation		02/12/2007	02/16/2007	Baseline Inspections
	7111117	- MODS AND 50.59	4			
2,3	IP 7111102	Evaluation of Changes, Tests, or Experiments		03/05/2007	03/09/2007	Baseline Inspections
2,3	IP 7111117B	Permanent Plant Modifications		03/05/2007	03/09/2007	Baseline Inspections
	71121	- OCC RAD SAFETY	1			
2,3	IP 7112101	Access Control to Radiologically Significant Areas		04/09/2007	04/13/2007	Baseline Inspections
2,3	IP 7112102	ALARA Planning and Controls		04/09/2007	04/13/2007	Baseline Inspections
2,3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/09/2007	04/13/2007	Baseline Inspections
	71152B	- PI&R	4			
2,3	IP 71152B	Identification and Resolution of Problems		04/23/2007	04/27/2007	Baseline Inspections
2,3	IP 71152B	Identification and Resolution of Problems		05/14/2007	05/18/2007	Baseline Inspections
	60855.1	- OPERATION OF AN ISFSI	3			
2,3	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		04/23/2007	05/25/2007	Other Routine
	71114	- EP PRGM INSP	1			
2,3	IP 7111402	Alert and Notification System Testing		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 7111403	Emergency Response Organization Augmentation Testing		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 7111404	Emergency Action Level and Emergency Plan Changes		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 71151-EP01	Drill/Exercise Performance		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 71151-EP02	ERO Drill Participation		06/18/2007	06/22/2007	Baseline Inspections
2,3	IP 71151-EP03	Alert & Notification System		06/18/2007	06/22/2007	Baseline Inspections
	7112202	- PUB RAD SAFETY - RADWASTE	1			
2,3	IP 7112202	Radioactive Material Processing and Transportation		06/18/2007	06/22/2007	Baseline Inspections
	7112203	- PUB RAD SAFETY - REMP	1			
2,3	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Pr		07/30/2007	08/03/2007	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
01/01/2007 - 06/30/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	12/10EXM - INITIAL LSRO OPERATOR EXAM		2			
2	U01631	PEACH BOTTOM LSRO EXAM (FY08)		11/19/2007	11/23/2007	Not Applicable
2	U01631	PEACH BOTTOM LSRO EXAM (FY08)		12/10/2007	12/14/2007	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
	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
	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
	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
	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
	7111111B - LSRO REQUAL INSPECTION		2			
2,3	IP 7111111B	Licensed Operator Requalification Program		06/02/2008	06/05/2008	Baseline Inspections

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Environmental Protection
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R. Fletcher, Department of Environment, Radiological Health Program

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SUNSI Review Complete: MKG (Reviewer's Initials)

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