



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

March 3, 2010

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: ANNUAL ASSESSMENT LETTER – PEACH BOTTOM ATOMIC POWER
STATION (05000277/2010001 and 05000278/2010001)

Dear Mr. Pardee:

On February 16, 2010, 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 January 1, 2009 through December 31, 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 security 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 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 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 on conducting infrequently performed inspection procedures (IPs) which include IP 60855, "Operation of an ISFSI" and IP 92702, "Follow-up on Corrective Actions for Violations and Deviations."

Regarding IP 92702, the staff issued a Confirmatory Order to Exelon on December 1, 2009, formalizing an agreement reached through the NRC's Alternative Dispute Resolution process regarding two acts of deliberate misconduct (ML093350150)¹. The first act involved a maintenance supervisor who provided incomplete and inaccurate information for unescorted access to the site. The second act involved a licensed reactor operator who deliberately failed to report an arrest in accordance with the site security program procedures associated with driving under the influence. In accordance with this Confirmatory Order, the NRC will conduct the IP 92702 follow-up inspection to review the corrective actions associated with these issues.

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

Additionally, on January 6, 2009, the staff issued a severity level III Notice of Violation (NOV), with a \$65,000 civil penalty (ML083530084) related to the inattentive security officer issue which was discovered in September 2007. As discussed in the 2009 Mid Cycle Performance Assessment Letter (ML0924402530), the extensive inspections completed adequately addressed this issue.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2011. 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 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 Agencywide Documents Access and Management 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 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,



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

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

cc w/encl: Distribution via ListServe
Peach Bottom Inspection/Activity Plan

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

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NAME	ARosebrook/	AAR	JTrapp/	JT	PKrohn/	PGK
DATE	02/ 21 /10		02/24 /10		03/02/10	

OFFICIAL RECORD COPY

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
2, 3	01/01/2010	12/31/2010	EP - EP ANNUAL REPORT		4
			IP 7111406	Drill Evaluation	
			MODS - PERMANENT PLANT MODIFICATIONS		
2, 3	03/01/2010	03/05/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	4
2, 3	03/15/2010	03/19/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	4
			07/12EXM - LSRO OPERATOR LICENSING EXAM		
2	06/07/2010	06/18/2010	U01795	FY-10 PEACH BOTTOM LSRO INITIAL OPERATOR LICENSING EXAM	3
2	07/12/2010	07/23/2010	U01795	FY-10 PEACH BOTTOM LSRO INITIAL OPERATOR LICENSING EXAM	3
			RADWASTE - RAD WASTE		
2, 3	03/29/2010	04/02/2010	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	1
			7111107T - TRIENNIAL HEAT SINK		
2, 3	05/17/2010	05/21/2010	IP 7111107T	Heat Sink Performance	1
			TI-173 - GROUND WATER TI		
2, 3	06/14/2010	06/18/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	1
			RETS - HP-EFFULENTS / ISFSI / INSTRUMENTS		
2, 3	06/14/2010	06/18/2010	IP 60855	Operation Of An ISFSI	1
2, 3	06/14/2010	06/18/2010	IP 71124.05	Radiation Monitoring Instrumentation	1
2, 3	06/14/2010	06/18/2010	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	1
			EP EX - EP EXERCISE EVALUATION		
2, 3	06/21/2010	06/25/2010	IP 7111401	Exercise Evaluation	4
2, 3	06/21/2010	06/25/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	4
2, 3	06/21/2010	06/25/2010	IP 71151-EP01	Drill/Exercise Performance	3
2, 3	06/21/2010	06/25/2010	IP 71151-EP02	ERO Drill Participation	3
2, 3	06/21/2010	06/25/2010	IP 71151-EP03	Alert & Notification System	3
			2561 - DECOMMISSIONING PWR RXR INSPECT PROG		
1	08/09/2010	08/13/2010	IP 36801	Organization, Management, And Cost Controls At Permanently Shutdown Reactors	1
1	08/09/2010	08/13/2010	IP 37801	Safety Reviews, Design Changes, And Modifications At Permanently Shutdown Reactors	1
1	08/09/2010	08/13/2010	IP 40801	Self-Assessment, Auditing, And Corrective Action At Permanently Shutdown Reactors	1
1	08/09/2010	08/13/2010	IP 62801	Maintenance And Surveillance At Permanently Shutdown Reactors	1
1	08/09/2010	08/13/2010	IP 71801	Decommissioning Performance And Status Review At Permanently Shutdown Reactors	1
1	08/09/2010	08/13/2010	IP 83750	Occupational Radiation Exposure	1
1	08/09/2010	08/13/2010	IP 84750	Radioactive Waste Treatment, And Effluent And Environmental Monitoring	1
1	08/09/2010	08/13/2010	IP 86750	Solid Radioactive Waste Management And Transportation Of Radioactive Materials	1
1	08/09/2010	08/13/2010	IP 92702	Followup On Corrective Actions For Violations And Deviations	1

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

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
2, 3	08/23/2010	08/27/2010	HP	- ALARA/AIR/DOSE/INSTRUMENTS	1
			IP 71124.02	Occupational ALARA Planning and Controls	
			IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			IP 71124.04	Occupational Dose Assessment	
			IP 71124.05	Radiation Monitoring Instrumentation	
2	09/20/2010	09/24/2010	7111108G	- U2 INSERVICE INSPECTION	1
			IP 7111108G	Inservice Inspection Activities - BWR	
2, 3	09/20/2010	09/24/2010	OUTAGE	- ACCESS/ALARA/AIR/DOSE/INST	1
			IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			IP 71124.02	Occupational ALARA Planning and Controls	
			IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			IP 71124.04	Occupational Dose Assessment	
			IP 71124.05	Radiation Monitoring Instrumentation	
2	01/03/2011	01/07/2011	01/31EXM	- OPERATOR LICENSING INITIAL EXAMS	5
			U01769	FY11 - PEACH BOTTOM UNITS 2&3 INITIAL OPERATOR LICENSING EXAM	
2	01/31/2011	02/11/2011	U01769	FY11 - PEACH BOTTOM UNITS 2&3 INITIAL OPERATOR LICENSING EXAM	
2, 3	10/25/2010	10/29/2010	HP	- ACCESS/ALARA/PI	1
			IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			IP 71124.02	Occupational ALARA Planning and Controls	
			IP 71151	Performance Indicator Verification	
2, 3	10/29/2010	12/31/2010	CLOSEOUT	- CLOSEOUT - WILLFUL MISCONDUCT CONF ORDER	1
			IP 92702	Followup On Corrective Actions For Violations And Deviations	
2, 3	11/29/2010	12/03/2010	TI-177	- MANAGING GAS ACCUMULATION IN ECCS	3
			IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
2, 3	01/01/2011	12/31/2011	EP	- EP ANNUAL REPORT	4
			IP 7111406	Drill Evaluation	
2, 3	03/07/2011	03/11/2011	711111B	- PB REQUAL INSP W/IF RESULTS	3
			IP 711111B	Licensed Operator Requalification Program	
2, 3	01/31/2011	02/04/2011	EP PROGR	- EP PROGRAM INSPECTION	1
			IP 7111402	Radiological Environmental Monitoring Program	
			IP 7111403	Emergency Response Organization Augmentation Testing	
			IP 7111404	Emergency Action Level and Emergency Plan Changes	
			IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
			IP 71151-EP01	Drill/Exercise Performance	
			IP 71151-EP02	ERO Drill Participation	

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2.3	01/31/2011	02/04/2011	EP PROGR - EP PROGRAM INSPECTION		1
			IP 71151-EP03	Alert & Notification System	
			7111121 - CDBI		
2.3	02/14/2011	02/18/2011	IP 7111121	Component Design Bases Inspection	6
2.3	02/28/2011	03/04/2011	IP 7111121	Component Design Bases Inspection	
2.3	03/07/2011	03/11/2011	IP 7111121	Component Design Bases Inspection	
			HP-71124 - HP- /INSTRUMENTS/REMP/ISFSI		
2.3	06/06/2011	06/10/2011	IP 60855	Operation Of An ISFSI	1
2.3	06/06/2011	06/10/2011	IP 71124.05	Radiation Monitoring Instrumentation	
2.3	06/06/2011	06/10/2011	IP 71124.07	Public Radiation Safety	

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