



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

March 4, 2009

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 (REPORT 05000277/2009001 AND 05000278/2009001)**

Dear Mr. Pardee:

On February 10, 2009, the NRC Staff completed its performance review of the Peach Bottom Atomic Power Station. Our technical staff reviewed Peach Bottom performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 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.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "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 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.

The staff identified four inspection findings for the current twelve month assessment period with a documented cross-cutting theme in the aspect of document and procedure adequacy (H.2(c))¹. The NRC first identified this theme in our mid-cycle assessment letter dated September 2, 2008 [ML082470454]² and concluded that a substantive crosscutting issue did not exist because you recognized the theme and had taken or had scheduled to take appropriate corrective actions. During this assessment period, we reviewed your corrective action plan and identified no concerns with your implementation. Furthermore, in the last six months of this assessment period, the staff identified no inspections findings with this aspect, which reflects an

¹ This is a descriptor which correlates to the cross cutting aspect in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program".

² Designation in parentheses refers to an ADAMS ascension number. Documents referenced in this letter are publicly available using the ascension number in ADAMS.

improving trend. Therefore, the NRC determined that a substantive crosscutting 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.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through June 30, 2010. In addition to the baseline inspections, we plan on conducting inspections of your independent spent fuel storage installation. 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 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
Division of Reactor Projects
Projects Branch 4

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

Enclosure: Peach Bottom Inspection/Activity Plan

cc w/encl:

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S. Pattison, Secretary, MD Department of the Environment
M. Griffen, Maryland Department of Environment
A. Lauland, Director, Homeland Security Advisor
Public Service Commission of Maryland, Engineering Division
Board of Supervisors, Peach Bottom Township
B. O'Connor, Council Administrator of Harford County Council
R. Ayers, Deputy Mgr, Harford County Div of Emergency Operations
E. Crist, Harford County Div of Emergency Operations
S. Ayers, Emergency Planner, Harford County Div of Emergency Operations
R. Brooks, Cecil County Dept of Emergency Services
Mr & Mrs Dennis Hiebert, Peach Bottom Alliance
E. Epstein, TMI - Alert
J. Johnsrud, National Energy Committee, Sierra Club
Mr. & Mrs. Kip Adams
R. Fletcher, Dir, MD Environmental Program Manager, Radiological Health Program
J. Powers, Director, PA Office of Homeland Security
R. French, Dir, PA Emergency Management Agency
Director, Nuclear Safety Project, Union of Concerned Scientists
Institute for Nuclear Power Operations (INPO)

conducting inspections of your independent spent fuel storage installation. 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.

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

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DATE	02/ 23 /09		02/ 24 /09	

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Peach Bottom
Inspection / Activity Plan
01/01/2009 - 06/30/2010

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			711111B - BIENNIAL REQUAL INSP WITH P/F RESULTS		3
2, 3	03/02/2009	03/06/2009	IP 7111111B	Licensed Operator Requalification Program	
			TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION		3
2, 3	03/16/2009	03/20/2009	IP 7111105T	Fire Protection [Triennial]	
2, 3	03/30/2009	04/03/2009	IP 7111105T	Fire Protection [Triennial]	
			71121 - OCC RAD		1
2, 3	04/20/2009	04/24/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2, 3	04/20/2009	04/24/2009	IP 7112102	ALARA Planning and Controls	
2, 3	04/20/2009	04/24/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
			71121 - OCC RAD SAFETY		1
2, 3	07/13/2009	07/17/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2, 3	07/13/2009	07/17/2009	IP 7112102	ALARA Planning and Controls	
2, 3	07/13/2009	07/17/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
			71152B - PI&R BIENNIAL TEAM		4
2, 3	07/20/2009	07/24/2009	IP 71152B	Identification and Resolution of Problems	
2, 3	08/03/2009	08/07/2009	IP 71152B	Identification and Resolution of Problems	
			EP PROGR - EP PROGRAM INSPECTION		2
2, 3	07/27/2009	07/31/2009	IP 7111402	Alert and Notification System Testing	
2, 3	07/27/2009	07/31/2009	IP 7111403	Emergency Response Organization Augmentation Testing	
2, 3	07/27/2009	07/31/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2, 3	07/27/2009	07/31/2009	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
2, 3	07/27/2009	07/31/2009	IP 71151	Performance Indicator Verification	
			71122 - REMP		1
2, 3	07/27/2009	07/31/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
			71801 - SAFSTOR INSPECTION		1
1	08/10/2009	08/13/2009	IP 37801	Safety Reviews, Design Changes, And Modifications At Permanently Shutdown Reactors	
1	08/10/2009	08/13/2009	IP 62801	Maintenance And Surveillance At Permanently Shutdown Reactors	
1	08/10/2009	08/13/2009	IP 71801	Decommissioning Performance And Status Review At Permanently Shutdown Reactors	
1	08/10/2009	08/13/2009	IP 83750	Occupational Radiation Exposure	
1	08/10/2009	08/13/2009	IP 84750	Radioactive Waste Treatment, And Effluent And Environmental Monitoring	
1	08/10/2009	08/13/2009	IP 86750	Solid Radioactive Waste Management And Transportation Of Radioactive Materials	
1	08/10/2009	08/13/2009	IP 92702	Followup On Corrective Actions For Violations And Deviations	
			7111108G - U3 INSERVICE INSPECTION		1
3	09/21/2009	09/25/2009	IP 7111108G	Inservice Inspection Activities - BWR	

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

Peach Bottom
Inspection / Activity Plan
01/01/2009 - 06/30/2010

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			71121 - OCC RAD SAFETY		1
2,3	09/21/2009	09/25/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2,3	09/21/2009	09/25/2009	IP 7112102	ALARA Planning and Controls	
2,3	09/21/2009	09/25/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
			71121 - OCC RAD SAFETY & ISFSI		1
2,3	11/16/2009	11/20/2009	IP 60855	Operation Of An ISFSI	
2,3	11/16/2009	11/20/2009	IP 7112101	Access Control to Radiologically Significant Areas	
2,3	11/16/2009	11/20/2009	IP 7112102	ALARA Planning and Controls	
2,3	11/16/2009	11/20/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
2,3	11/16/2009	11/20/2009	IP 71151	Performance Indicator Verification	
			ISFSI - ANNUAL SAMPLE -- ISFSI INSPECTION		1
2	01/01/2010	12/31/2010	IP 60855	Operation Of An ISFSI	
			MODS - PERMANENT PLANT MODIFICATIONS		3
2,3	03/01/2010	03/05/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
2,3	03/15/2010	03/19/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			711107T - TRIENNIAL HEAT SINK		1
2,3	05/17/2010	05/21/2010	IP 7111107T	Heat Sink Performance	
			RETS - EFFULENTS		1
2,3	06/14/2010	06/18/2010	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
			TI-173 - GROUND WATER TI		1
2,3	06/14/2010	06/18/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
			EP EX - EP EXERCISE EVALUATION		1
2,3	06/21/2010	06/25/2010	IP 7111401	Exercise Evaluation	
2,3	06/21/2010	06/25/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2,3	06/21/2010	06/25/2010	IP 71151-EP01	Drill/Exercise Performance	
2,3	06/21/2010	06/25/2010	IP 71151-EP02	ERO Drill Participation	
2,3	06/21/2010	06/25/2010	IP 71151-EP03	Alert & Notification System	

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