



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

September 1, 2015

Mr. Bryan Hanson  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: MID-CYCLE ASSESSMENT LETTER PEACH BOTTOM ATOMIC POWER  
STATION (REPORT 05000277/2015005 and 05000278/2015005)**

Dear Mr. Hanson:

On August 11, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014 through June 30, 2015. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, PBAPS Units 2 and 3 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at PBAPS Units 2 and 3 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through June 30, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection plan are tentative and may be revised at the end-of-cycle performance review. In addition to ROP baseline inspections, the NRC will perform Inspection Procedure (IP) 60855.1, "Operation of an Independent Spent Fuel Storage Installation (ISFSI) at Operating Plants." The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security-related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring

wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The onsite portion of the audit was completed at PBAPS Units 2 and 3, and the information gathered will aid staff in development of the Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing Temporary Instruction (TI) 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be 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).

Please contact Fred L. Bower, III at (610) 337-5200 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Fred L. Bower, III, Chief  
Projects Branch 4  
Division of Reactor Projects

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

Enclosure: Inspection/Activity Plan

cc w/encl: Distribution via ListServ

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DATE	08/25 /15	08/ 24 /15	08/25/15		

**Peach Bottom**  
**Inspection / Activity Plan**  
**07/01/2015 - 06/30/2017**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>71124.08 - RADWASTE</b>		<b>1</b>
2, 3	07/20/2015	07/24/2015	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>RS7 - 71124.07</b>		<b>1</b>
2, 3	07/27/2015	07/31/2015	IP 71124.07	Radiological Environmental Monitoring Program	
			<b>RS45 - 71124.04, .05</b>		<b>1</b>
2, 3	08/10/2015	08/14/2015	IP 71124.04	Occupational Dose Assessment	
2, 3	08/10/2015	08/14/2015	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>7111108G - U3 INSERVICE INSPECTION</b>		<b>1</b>
3	09/21/2015	09/25/2015	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>RS123 - 71124.01, .02, .03</b>		<b>1</b>
2, 3	09/28/2015	10/02/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2, 3	09/28/2015	10/02/2015	IP 71124.02	Occupational ALARA Planning and Controls	
2, 3	09/28/2015	10/02/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2, 3	09/28/2015	10/02/2015	IP 71151-OR01	Occupational Exposure Control Effectiveness	
2, 3	09/28/2015	10/02/2015	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>7111117T - PERMANENT PLANT MODIFICATIONS</b>		<b>3</b>
2, 3	01/25/2016	01/29/2016	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
2, 3	02/08/2016	02/12/2016	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			<b>EP - EP EXERCISE EVALUATION</b>		<b>4</b>
2, 3	04/25/2016	04/29/2016	IP 7111401	Exercise Evaluation	
			<b>RS1234 - HP INSPECTION</b>		<b>1</b>
2, 3	03/07/2016	03/11/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2, 3	03/07/2016	03/11/2016	IP 71124.02	Occupational ALARA Planning and Controls	
2, 3	03/07/2016	03/11/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2, 3	03/07/2016	03/11/2016	IP 71124.04	Occupational Dose Assessment	
			<b>RS567PPI - HP TEAM INSPECTION</b>		<b>3</b>
2, 3	06/06/2016	06/10/2016	IP 71124.05	Radiation Monitoring Instrumentation	
2, 3	06/06/2016	06/10/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
2, 3	06/06/2016	06/10/2016	IP 71124.07	Radiological Environmental Monitoring Program	
2	06/06/2016	06/10/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>7111107T - TRIENNIAL HEAT SINK</b>		<b>1</b>
2, 3	06/13/2016	06/17/2016	IP 7111107T	Heat Sink Performance	

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

**Peach Bottom**  
**Inspection / Activity Plan**  
**07/01/2015 - 06/30/2017**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>3/20EXAM - PEACH BOTTOM INITIAL EXAM</b>		<b>4</b>
2	02/20/2017	02/24/2017	U01942	FY-17-PB INITIAL OPERATOR LICENSING EXAM	
2	03/20/2017	03/31/2017	U01942	FY-17-PB INITIAL OPERATOR LICENSING EXAM	
			<b>7111108G - PB U2 INSERVICE INSPECTION</b>		<b>1</b>
2	10/31/2016	11/04/2016	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>RS1234PI - HP INSPECTION</b>		<b>1</b>
2, 3	10/31/2016	11/04/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2, 3	10/31/2016	11/04/2016	IP 71124.02	Occupational ALARA Planning and Controls	
2, 3	10/31/2016	11/04/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2, 3	10/31/2016	11/04/2016	IP 71124.04	Occupational Dose Assessment	
2, 3	10/31/2016	11/04/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
			<b>7111111B - PB REQUAL INSP WITH P/F RESULTS</b>		<b>2</b>
2, 3	03/06/2017	03/10/2017	IP 7111111B	Licensed Operator Requalification Program	
			<b>CBDI - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
2, 3	01/30/2017	02/03/2017	IP 7111121	Component Design Bases Inspection	
2, 3	02/13/2017	02/17/2017	IP 7111121	Component Design Bases Inspection	
2, 3	02/27/2017	03/03/2017	IP 7111121	Component Design Bases Inspection	
			<b>71152B - PI&amp;R BIENNIAL</b>		<b>2</b>
2, 3	03/13/2017	03/17/2017	IP 71152B	Problem Identification and Resolution	
2, 3	03/27/2017	03/31/2017	IP 71152B	Problem Identification and Resolution	
			<b>RS12 - HP INSPECTION</b>		<b>1</b>
2, 3	03/27/2017	03/31/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2, 3	03/27/2017	03/31/2017	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>ISFSI - ISFSI LOADING CAMPAIGN INSPECTION</b>		<b>1</b>
2, 3	05/08/2017	05/12/2017	IP 60855	Operation Of An ISFSI	
2, 3	05/08/2017	05/12/2017	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>RS34 - HP INSPECTION</b>		<b>1</b>
2, 3	05/08/2017	05/12/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2, 3	05/08/2017	05/12/2017	IP 71124.04	Occupational Dose Assessment	
2	05/08/2017	05/12/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	

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