



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
475 ALLENDALE RD, STE 102  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 11, 2025

David P. Rhoades  
Senior Vice President  
Constellation Energy Generation, LLC  
President and Chief Nuclear Officer (CNO)  
Constellation Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 (REPORTS 05000277/2024006 AND 05000278/2024006)**

Dear David Rhoades:

The U.S. Nuclear Regulatory Commission (NRC) has completed its end-of-cycle performance assessment of Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2024, through December 31, 2024. 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 concluded that overall performance at your facility preserved public health and safety. The baseline inspection program was completed at your facility as defined in Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase."

The NRC determined the performance at Peach Bottom, Units 2 and 3, during the most recent quarter was within the Licensee Response Column (Column 1) of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the 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 December 31, 2026. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In addition to baseline inspections, the NRC plans to conduct an inspection of your modification of instrumentation and control systems to digital in accordance with Inspection Procedure 52003, "Digital Instrumentation and Control Modification Inspection." The specific schedule to be used for this inspection is being developed by NRC staff to coincide with specific milestones and activities in your project plan. NRC staff will communicate the specific schedule with you as it is identified.

In accordance with Title 10 of the *Code of Federal Regulations* 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 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).

Please contact me at 610-337-6916 with any questions you have regarding this letter.

Sincerely,

Sarah H. Elkhiamy, Chief  
Projects Branch 4  
Division of Operating Reactor Safety

Docket Nos. 05000277 and 05000278  
License Nos. DPR-44 and DPR-56

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 (REPORTS 05000277/2024006 AND 05000278/2024006) DATED MARCH 11, 2025

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DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/ROPAssessmentMeetings/Shared Documents/ROP-25 EOC Review/Branch 4/Peach Bottom/Peach Bottom ROP-25 Annual Assessment Letter.docx>

**ADAMS ACCESSION NUMBER: ML25069A473**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DORS	RI/DORS			
NAME	SHaney	SEIkhiamy			
DATE	3/6/2025	3/7/2025			

# Site Inspection Activity Plan

## Peach Bottom

01/01/2025 - 12/31/2026

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>Material Control and Accounting - Peach Bottom</b>						1
2,3	2/3/2025	2/7/2025	IP 71130.11	000742	Material Control and Accounting (MC&A)	
<b>EP Program Inspection - Peach Bottom</b>						1
2,3	2/24/2025	2/28/2025	IP 71114.02	000717	Alert and Notification System Testing	
2,3	2/24/2025	2/28/2025	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
2,3	2/24/2025	2/28/2025	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
2,3	2/24/2025	2/28/2025	IP 71114.05	000720	Maintenance of Emergency Preparedness	
2,3	2/24/2025	2/28/2025	IP 71151	001397	Performance Indicator Verification	
<b>PB Requal Inspection with P/F Results</b>						1
2,3	3/24/2025	3/28/2025	IP 71111.11A	000703	Licensed Operator Requalification Program and Licensed Operator Performance	
2,3	3/24/2025	3/28/2025	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
<b>Commercial Grade Dedication - Peach Bottom</b>						3
2,3	4/21/2025	4/25/2025	IP 71111.21N.03	001808	Commercial Grade Dedication	
2,3	5/5/2025	5/9/2025	IP 71111.21N.03	001808	Commercial Grade Dedication	
<b>2025 Peach Bottom Initial Operator Licensing Exam</b>						4
2,3	4/21/2025	4/25/2025	OV	000956	FB-OR-Onsite Validation Of Initial License Examination (OV)	
2,3	5/19/2025	5/23/2025	EXAD	000500	FB-OR-Initial License Exam Administration (EXAD)	
<b>RP - 71124.05 Rad. Instruments</b>						1
2,3	5/5/2025	5/9/2025	IP 71124.05	000729	Radiation Monitoring Instrumentation	
<b>RP - SAFSTOR - PBU1</b>						2
1	5/12/2025	5/16/2025	IP 37801	000009	Safety Reviews, Design Changes, And Modifications At Permanently Shutdown Reactors	
1	5/12/2025	5/16/2025	IP 40801	000010	Self-Assessment, Auditing, And Corrective Action At Permanently Shutdown Reactors	
1	5/12/2025	5/16/2025	IP 64704	000018	Fire Protection Program at Permanently Shutdown Reactors	
1	5/12/2025	5/16/2025	IP 71801	000023	Decommissioning Performance And Status Review At Permanently Shutdown Reactors	
1	5/12/2025	5/16/2025	IP 83750	000035	Occupational Radiation Exposure at Permanently Shutdown Reactors	
1	5/12/2025	5/16/2025	IP 84750	000040	Radioactive Waste Treatment and Effluent And Environmental Monitoring	
1	5/12/2025	5/16/2025	IP 86750	000045	Solid Radioactive Waste Management And Transportation Of Radioactive Materials	
<b>Access Control, Protective Strategy, TSR, SPR, Pls - PB</b>						4
2,3	5/19/2025	5/23/2025	IP 71130.02	000734	Access Control	
2,3	5/19/2025	5/23/2025	IP 71130.05	000737	Protective Strategy Evaluation	

# Site Inspection Activity Plan

2,3	5/19/2025	5/23/2025	IP 71130.09	001656	Security Plan Changes	
2,3	5/19/2025	5/23/2025	IP 71130.14	000743	Review of Power Reactor Target Sets	
2,3	5/19/2025	5/23/2025	IP 71151	001338	Performance Indicator Verification	
<b>PI&amp;R Biennial Team Inspection - Peach Bottom</b>						4
2,3	9/8/2025	9/12/2025	IP 71152B	000747	Problem Identification and Resolution	
2,3	9/22/2025	9/26/2025	IP 71152B	000747	Problem Identification and Resolution	
<b>RP - 71124.08 Rad Waste and Part 37</b>						1
2,3	9/15/2025	9/19/2025	IP 71124.08	000732	Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation	
<b>RP - 71124.06 RETS</b>						1
2,3	10/6/2025	10/10/2025	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
<b>Inservice Inspection - Peach Bottom Unit 3</b>						1
3	10/13/2025	10/24/2025	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
<b>RP - 71124.01 Rad. Hazards</b>						1
3	10/27/2025	10/31/2025	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
<b>ISFSI - IP 60859 License Renewal, Peach Bottom</b>						2
2,3	11/3/2025	11/4/2025	IP 60859		Independent Spent Fuel Storage Installation (ISFSI) License Renewal Inspection	
<b>RP- 71151 PI Verification (Remote)</b>						1
2,3	11/17/2025	11/19/2025	IP 71151	000746	Performance Indicator Verification	
<b>Access Control, AA, FFD, Sec Plan Review, PI, ISFSI - PB</b>						3
2,3	1/5/2026	1/9/2026	IP 71130.01	000733	Access Authorization	
2,3	1/5/2026	1/9/2026	IP 71130.02	000734	Access Control	
2,3	1/5/2026	1/9/2026	IP 71130.08	000740	Fitness-For-Duty Program	
2,3	1/5/2026	1/9/2026	IP 71130.09	001656	Security Plan Changes	
2,3	1/5/2026	1/9/2026	IP 71151	001338	Performance Indicator Verification	
2,3	1/5/2026	1/9/2026	IP 81311	000831	Physical Security Requirements for Independent Spent Fuel Storage Installations	
2,3	2/23/2026	2/27/2026	IP 71130.01	000733	Access Authorization	
2,3	2/23/2026	2/27/2026	IP 71130.08	000740	Fitness-For-Duty Program	
<b>Age Related Degradation - Peach Bottom</b>						3
2,3	1/26/2026	1/30/2026	IP 71111.21N.04	001832	Age-Related Degradation	
2,3	2/2/2026	2/6/2026	IP 71111.21N.04	001832	Age-Related Degradation	
2,3	2/9/2026	2/13/2026	IP 71111.21N.04	001832	Age-Related Degradation	
<b>Cyber Security - Peach Bottom</b>						2
2,3	3/16/2026	3/20/2026	IP 71130.10	000741	Cybersecurity	
<b>2026 Peach Bottom Initial Operator Licensing Exam</b>						4

# Site Inspection Activity Plan

2,3	4/13/2026	4/17/2026	OV	000956	FB-OR-Onsite Validation Of Initial License Examination (OV)	
2,3	5/11/2026	5/15/2026	EXAD	000500	FB-OR-Initial License Exam Administration (EXAD)	
<b>RP - 71124.03 Resp. Protection and 71124.04 Occupational Dose</b>						1
2,3	4/20/2026	4/24/2026	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
2,3	4/20/2026	4/24/2026	IP 71124.04	000728	Occupational Dose Assessment	
<b>EP Exercise Inspection - Peach Bottom</b>						5
2,3	4/27/2026	5/1/2026	IP 71114.01	000716	Exercise Evaluation	
2,3	4/27/2026	5/1/2026	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
2,3	4/27/2026	5/1/2026	IP 71151	001397	Performance Indicator Verification	
<b>FORCE-ON-FORCE PLANNING AND EXERCISE WEEKS - PB</b>						4
2,3	5/11/2026	5/15/2026	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
2,3	6/1/2026	6/5/2026	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
<b>RP - SAFSTOR - PB U1</b>						2
1	5/25/2026	5/29/2026	IP 37801	000009	Safety Reviews, Design Changes, And Modifications At Permanently Shutdown Reactors	
1	5/25/2026	5/29/2026	IP 40801	000010	Self-Assessment, Auditing, And Corrective Action At Permanently Shutdown Reactors	
1	5/25/2026	5/29/2026	IP 64704	000018	Fire Protection Program at Permanently Shutdown Reactors	
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1	5/25/2026	5/29/2026	IP 84750	000040	Radioactive Waste Treatment and Effluent And Environmental Monitoring	
1	5/25/2026	5/29/2026	IP 86750	000045	Solid Radioactive Waste Management And Transportation Of Radioactive Materials	
<b>RP - 71124.07 REMP</b>						1
2,3	9/14/2026	9/18/2026	IP 71124.07	000731	Radiological Environmental Monitoring Program	
<b>Inservice Inspection - Peach Bottom Unit 2</b>						1
2	10/19/2026	10/23/2026	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
<b>RP - 71124.01 Rad Hazards</b>						1
2	10/26/2026	10/30/2026	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
<b>RP - 71151 PIV</b>						1
2,3	11/16/2026	11/18/2026	IP 71151	000746	Performance Indicator Verification	