



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 1, 2023

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 05000277/2022006 AND 05000278/2022006)

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, 2022 through December 31, 2022. 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, Unit 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 Peach Bottom Unit 3.

The NRC determined the performance at Peach Bottom, Unit 2 during the most recent quarter was within the Regulatory Response Column (Column 2) of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter 0305, "Operating Assessment Program." This conclusion was based on a single inspection finding having low-to-moderate safety significance (i.e., White) in the Initiating Events Cornerstone originating in the third quarter of 2022, and all PIs within the expected range (i.e., Green).

Therefore, in addition to ROP baseline inspections, the NRC plans to conduct a supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs." This inspection procedure is conducted to provide assurance that the root and contributing causes of risk significant performance issues are understood, the extent of condition and the extent of cause are

identified, and the corrective actions are prompt and sufficient to prevent recurrence. This inspection will be scheduled when you notify the NRC of your readiness.

The enclosed inspection plan lists the inspections scheduled through December 31, 2024. 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 response to the COVID-19 public health emergency (PHE), the NRC adjusted inspection plans and schedules to safeguard the health and safety of both NRC and licensee staff while still effectively implementing the ROP. While the PHE continues, overall conditions throughout the country support performance of our inspection and oversight activities returning to normal onsite presence by our resident and region-based inspectors and completion of nominal baseline inspection samples. We continue to monitor site-specific conditions and, as discussed in our November 2, 2021, memo, "Implementation of Inspection Programs Following Re-Entry from the Public Health Emergency for the Reactor Safety Program" (ML21295A302), it may be necessary to alter how and when we perform our inspection and oversight activities as we balance the importance of protecting the health and safety of our staff with the need to conduct effective oversight that supports the NRC's critical safety mission.

For inspections requiring extensive coordination with offsite organizations, such as evaluated emergency preparedness exercises, NRC guidance and frequently asked questions for security and emergency preparedness can be found here: <https://www.nrc.gov/about-nrc/covid-19/security-ep/>. Similarly, the NRC has developed guidance if force-on-force inspections cannot be completed as scheduled due to an emergency, such as the COVID-19 PHE. These changes help ensure the health and safety of both NRC and licensee staff while maintaining the NRC's important safety and security mission during the COVID-19 PHE. The attached inspection plan is accurate on the date of issuance but remains subject to change based on approval of potential exemption requests or other changes needed due to changing conditions in the COVID-19 PHE. NRC staff will contact your appropriate regulatory affairs staff in order to coordinate inspection planning and scheduling.

In addition to baseline inspections, the NRC recently completed Inspection Procedure 37060, "10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection," and an inspection report documenting inspection results is expected to be issued by March 27, 2023.

Beginning on January 1, 2023, the engineering inspection frequency will transition from a triennial (3-year) to a quadrennial (4-year) cycle. The new engineering inspection program will consist of a "Comprehensive Engineering Team Inspection (CETI)¹" and three "Focused Engineering Inspections (FEIs)" that will be performed in each quadrennial cycle. For the cycle

¹ Aspects of the Design Basis Assurance Inspection (DBAI), Evaluations of Changes, Tests, & Experiments, and Heat Sink inspections will be included in the new CETI inspection. Previously scheduled Evaluation of Changes, Tests, & Experiments and Heat Sink inspections have been cancelled and removed from the attached Report 22.

beginning in 2023, the FEIs will be: “Fire Protection Team Inspection,” “Commercial Grade Dedication,” and an engineering inspection that reviews age-related degradation and management².

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’s Public Document Room or from the Publicly Available Records (PARS) component of NRC’s document system (ADAMS). ADAMS is accessible from the NRC’s Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact Jonathan Greives at 610-337-5337 with any questions you have regarding this letter.

Sincerely,

Samuel S. Lee, Acting Director
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

² The Age-Related Degradation procedure is publicly available and the NRC plans to implement the first inspection of this type beginning in July 2023.

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 (REPORTS 05000277/2022006 AND 05000278/2022006) DATED MARCH 1, 2023

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- DRSS Reactor Branch Chiefs
- DTiftt, RI SLO
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- ROPAssessment Resource

DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/ROPAssessmentMeetings/Shared Documents/ROP-23 EOC Review/Branch 4/RI 2022 Annual Assessment Letter Peach Bottom.docx>

ADAMS ACCESSION NUMBER: ML23059A045

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|--|------------|---|---------|---|--|
| <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 | RI/DORS | | |
| NAME | MHardgrove | JGreives | SLee | | |
| DATE | 2/28/23 | 2/28/23 | 2/28/23 | | |

OFFICIAL RECORD COPY

Site Inspection Activity Plan

Peach Bottom

01/01/2023 - 12/31/2024

| Unit | Start | End | Activity | CAC | Title | Staff Count |
|--|-----------|-----------|--------------|--------|---|-------------|
| 10 CFR 50.69 - Risk Informed SSC Implementation - Peach Bottom | | | | | | 4 |
| 2,3 | 1/23/2023 | 1/27/2023 | IP 37060 | 000521 | 10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection | |
| 2,3 | 2/6/2023 | 2/10/2023 | IP 37060 | 000521 | 10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection | |
| EP PROGRAM INSPECTION - PEACH BOTTOM | | | | | | 1 |
| 2,3 | 2/27/2023 | 3/3/2023 | IP 71114.02 | 000717 | Alert and Notification System Testing | |
| 2,3 | 2/27/2023 | 3/3/2023 | IP 71114.03 | 000718 | Emergency Response Organization Staffing and Augmentation System | |
| 2,3 | 2/27/2023 | 3/3/2023 | IP 71114.04 | 000719 | Emergency Action Level and Emergency Plan Changes | |
| 2,3 | 2/27/2023 | 3/3/2023 | IP 71114.05 | 000720 | Maintenance of Emergency Preparedness | |
| 2,3 | 2/27/2023 | 3/3/2023 | IP 71151 | 001397 | Performance Indicator Verification | |
| PB Requal Inspection with P/F Results | | | | | | 2 |
| 2,3 | 3/5/2023 | 3/10/2023 | IP 71111.11A | 000703 | Licensed Operator Requalification Program and Licensed Operator Performance | |
| 2,3 | 3/5/2023 | 3/10/2023 | IP 71111.11B | 000704 | Licensed Operator Requalification Program and Licensed Operator Performance | |
| AA, FFD-PB | | | | | | 2 |
| 2,3 | 3/6/2023 | 3/10/2023 | IP 71130.01 | 000733 | Access Authorization | |
| 2,3 | 3/6/2023 | 3/10/2023 | IP 71130.08 | 000740 | Fitness For Duty Program | |
| Comprehensive Engineering Team Inspection - Peach Bottom Unit 2 and 3 | | | | | | 7 |
| 2,3 | 4/10/2023 | 4/14/2023 | IP 71111.21M | 000713 | Design Bases Assurance (DBA) Inspection | |
| 2,3 | 4/24/2023 | 4/28/2023 | IP 71111.21M | 000713 | Design Bases Assurance (DBA) Inspection | |
| HP Instrumentation (71124.05) | | | | | | 1 |
| 2,3 | 4/10/2023 | 4/14/2023 | IP 71124.05 | 000729 | Radiation Monitoring Instrumentation | |
| ISFSI Loading Inspection (60855) - PB | | | | | | 2 |
| 2,3 | 4/17/2023 | 4/21/2023 | IP 60855 | 001001 | Operation Of An ISFSI | |
| PI&R Biennial Team Inspection - PB | | | | | | 4 |
| 2,3 | 7/17/2023 | 7/21/2023 | IP 71152B | 000747 | Problem Identification and Resolution | |
| 2,3 | 7/31/2023 | 8/4/2023 | IP 71152B | 000747 | Problem Identification and Resolution | |
| HP Rad Waste (71124.08) | | | | | | 1 |
| 2,3 | 7/24/2023 | 7/28/2023 | IP 71124.08 | 000732 | Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation | |
| FORCE-ON-FORCE PLANNING AND EXERCISE - PB | | | | | | 4 |
| 2,3 | 7/24/2023 | 7/28/2023 | IP 71130.03 | 000735 | Contingency Response - Force-On-Force Testing | |
| 2,3 | 8/14/2023 | 8/18/2023 | IP 71130.03 | 000735 | Contingency Response - Force-On-Force Testing | |

Site Inspection Activity Plan

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|---|------------|------------|-----------------|--------|---|---|
| HP REMP (71124.07) | | | | | | 1 |
| 2,3 | 9/18/2023 | 9/22/2023 | IP 71124.07 | 000731 | Radiological Environmental Monitoring Program | |
| Inservice Inspection - PB | | | | | | 1 |
| 3 | 10/23/2023 | 10/27/2023 | IP 71111.08G | 000701 | Inservice Inspection Activities (BWR) | |
| HP Rad Hazards (71124.01) and PIs (71151) | | | | | | 1 |
| 2,3 | 10/30/2023 | 11/3/2023 | IP 71124.01 | 000725 | Radiological Hazard Assessment and Exposure Controls | |
| Access Control, Equipment, Sec Trng, Sec Plan Review, PI, ISFSI-PB | | | | | | 3 |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 71130.02 | 000734 | Access Control | |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 71130.04 | 000736 | Equipment Performance, Testing, and Maintenance | |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 71130.07 | 000739 | Security Training | |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 71130.09 | 001656 | Security Plan Changes | |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 71151 | 001338 | Performance Indicator Verification | |
| 2,3 | 12/11/2023 | 12/15/2023 | IP 81311 | 000831 | Physical Security Requirements for Independent Spent Fuel Storage Installations | |
| Cyber Security - Peach Bottom | | | | | | 4 |
| 2,3 | 2/5/2024 | 2/9/2024 | IP 71130.10 | 000741 | Cybersecurity | |
| FY24 Peach Bottom Initial License Examination | | | | | | 5 |
| 2,3 | 3/25/2024 | 3/29/2024 | OV | 000956 | FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV) | |
| 2,3 | 4/22/2024 | 4/26/2024 | EXAD | 000500 | FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD) | |
| RP – 71124.03 Airborne, 71124.04 Dose Assessment | | | | | | 1 |
| 2,3 | 4/8/2024 | 4/12/2024 | IP 71124.03 | 000727 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 2,3 | 4/8/2024 | 4/12/2024 | IP 71124.04 | 000728 | Occupational Dose Assessment | |
| EP Exercise Inspection - Peach Bottom | | | | | | 5 |
| 2,3 | 4/15/2024 | 4/19/2024 | IP 71114.04 | 000719 | Emergency Action Level and Emergency Plan Changes | |
| 2,3 | 4/15/2024 | 4/19/2024 | IP 71114.07 | 000722 | Exercise Evaluation - Hostile Action (HA) Event | |
| 2,3 | 4/15/2024 | 4/19/2024 | IP 71151 | 001397 | Performance Indicator Verification | |
| Access Control, Equipment Testing and Maintenance, Training, SPR | | | | | | 3 |
| 2,3 | 5/13/2024 | 5/17/2024 | IP 71130.02 | 000734 | Access Control | |
| 2,3 | 5/13/2024 | 5/17/2024 | IP 71130.04 | 000736 | Equipment Performance, Testing, and Maintenance | |
| 2,3 | 5/13/2024 | 5/17/2024 | IP 71130.07 | 000739 | Security Training | |
| 2,3 | 5/13/2024 | 5/17/2024 | IP 71130.09 | 001656 | Security Plan Changes | |
| 2,3 | 5/13/2024 | 5/17/2024 | IP 71151 | 001338 | Performance Indicator Verification | |
| Fire Protection - Peach Bottom | | | | | | 3 |
| 2,3 | 7/15/2024 | 7/19/2024 | IP 71111.21N.05 | 001646 | Fire Protection Team Inspection (FPTI) | |
| 2,3 | 7/29/2024 | 8/2/2024 | IP 71111.21N.05 | 001646 | Fire Protection Team Inspection (FPTI) | |
| RP - 71124.01 Rad Haz and 71151 PI Verification | | | | | | 1 |
| 2 | 10/21/2024 | 10/25/2024 | IP 71124.01 | 000725 | Radiological Hazard Assessment and Exposure Controls | |

Site Inspection Activity Plan

Inservice Inspection - Peach Bottom Unit 2

1

2 10/28/2024 11/1/2024 IP 71111.08G 000701 Inservice Inspection Activities (BWR)
