



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

March 2, 2022

Mr. 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 05000277/2021006 AND
05000278/2021006)**

Dear Mr. Rhoades:

The U.S Nuclear Regulatory Commission (NRC) has completed its end-of-cycle performance assessment of Peach Bottom Atomic Power Station, Units 2 and 3, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2021 through December 31, 2021. 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." All NRC inspections that occurred at your facility in 2021 were performed while the operating license was held by Exelon Generation Company, LLC. On February 1, 2022, the operating license was transferred to Constellation Energy Generation, LLC (Constellation), as documented in a license amendment (ADAMS Accession No. ML22021B660). As such, this letter and future communications regarding your facility will be addressed to and refer to the licensee as Constellation.

The NRC determined the performance at Peach Bottom Atomic Power Station, 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 Peach Bottom Atomic Power Station, Units 2 and 3.

The enclosed inspection plan lists the inspections scheduled through December 31, 2023. 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 also plans to conduct Inspection Procedure 37060, "10 CFR 50.69 Risk-Informed Categorization and Treatment of Structures, Systems, and Components Inspection," for Units 2 and 3 in January and February 2023.

In response to the COVID-19 public health emergency (PHE), the NRC adjusted inspection plans and schedules in order 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 to return 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" (ADAMS Accession No. 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 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 me at 610-337-5337 with any questions you have regarding this letter.

Sincerely,

Jonathan E. Greives, 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 05000277/2021006 AND 05000278/2021006) DATED MARCH 2, 2022

DISTRIBUTION:

JGreives, DORS
 LCasey, DORS
 EGarcia, DORS
 SRutenkroger, DORS, SRI
 PBoguszewski, DORS, RI
 SSchmitt, DORS, AA
 LHowell, RI OEDO
 RidsNrrPMPeachBottom Resource
 RidsNrrDorlPl1 Resource
 DORS Specialist Branch Chiefs
 DRSS Reactor Branch Chiefs
 DTiftt, RI, SLO
 DScrenci, RI, PAO
 NSheehan, RI, PAO
 RidsNrrDrolrab Resource
 ROPassessment Resource

DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/ROPAssessmentMeetings/Shared Documents/ROP-22 EOC Review/Branch 4/Peach Bottom/Peach Bottom 2021 Annual Assessment Letter.docx>

ADAMS ACCESSION NUMBER: ML22059A052

| | | | | | |
|--|---------|---|--|---|--|
| <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 | LCasey | JGreives | | | |
| DATE | 2/25/22 | 2/28/22 | | | |

OFFICIAL RECORD COPY

Site Inspection Activity Plan

Peach Bottom

01/01/2022 - 12/31/2023

| Unit | Start | End | Activity | CAC | Title | Staff Count |
|---|------------|------------|-----------------|--------|---|-------------|
| Design Basis Assurance Inspection - Power Operated Valves - Peach Bottom Units 2 and 3 | | | | | | 3 |
| 2, 3 | 3/21/2022 | 4/8/2022 | IP 71111.21N.02 | 001645 | Design-Basis Capability of Power-Operated Valves Under 10 CFR 50.55a Requirements | |
| Resp Protection & Dose Assessment (71124.03/71124.04) | | | | | | 1 |
| 2, 3 | 4/18/2022 | 4/22/2022 | IP 71124.03 | 000727 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 2, 3 | 4/18/2022 | 4/22/2022 | IP 71124.04 | 000728 | Occupational Dose Assessment | |
| EP EXERCISE INSPECTION - PEACH BOTTOM | | | | | | 4 |
| 2, 3 | 4/25/2022 | 4/29/2022 | IP 71114.01 | 000716 | Exercise Evaluation | |
| 2, 3 | 4/25/2022 | 4/29/2022 | IP 71151 | 001397 | Performance Indicator Verification | |
| Access Control, Protective Strat, TSR, SPR, PI-PB | | | | | | 4 |
| 2, 3 | 5/16/2022 | 5/20/2022 | IP 71130.02 | 000734 | Access Control | |
| 2, 3 | 5/16/2022 | 5/20/2022 | IP 71130.05 | 000737 | Protective Strategy Evaluation | |
| 2, 3 | 5/16/2022 | 5/20/2022 | IP 71130.09 | 001656 | Security Plan Changes | |
| 2, 3 | 5/16/2022 | 5/20/2022 | IP 71130.14 | 000743 | Review of Power Reactor Target Sets | |
| 2, 3 | 5/16/2022 | 5/20/2022 | IP 71151 | 001338 | Performance Indicator Verification | |
| FY22 Peach Bottom Initial License Examination | | | | | | 4 |
| 2, 3 | 4/24/2022 | 4/29/2022 | OV | 000956 | FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV) | |
| 2, 3 | 5/22/2022 | 5/27/2022 | EXAD | 000500 | FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD) | |
| Cyber Security - Peach Bottom | | | | | | 4 |
| 2, 3 | 5/23/2022 | 5/27/2022 | IP 71130.10 | 000741 | Cybersecurity | |
| 50.59 Inspection - Peach Bottom Units 2 and 3 | | | | | | 3 |
| 2, 3 | 6/13/2022 | 6/17/2022 | IP 71111.17T | 000709 | Evaluations of Changes, Tests, and Experiments | |
| RETS (71124.06) | | | | | | 1 |
| 2, 3 | 7/18/2022 | 7/22/2022 | IP 71124.06 | 000730 | Radioactive Gaseous and Liquid Effluent Treatment | |
| Material Control and Accountability - Peach Bottom Units 2 and 3 | | | | | | 1 |
| 2, 3 | 8/22/2022 | 8/26/2022 | IP 71130.11 | 000742 | Material Control and Accounting (MC&A) | |
| Triennial Heat Sink - Peach Bottom Units 2 and 3 | | | | | | 1 |
| 2, 3 | 9/19/2022 | 9/23/2022 | IP 71111.07T | 000700 | Heat Sink Performance | |
| Inservice Inspection - Peach Bottom Unit 2 | | | | | | 1 |
| 2 | 10/24/2022 | 10/28/2022 | IP 71111.08G | 000701 | Inservice Inspection Activities (BWR) | |
| Rad Hazards (71124.01) and PIs (71151) | | | | | | 1 |
| 2, 3 | 10/24/2022 | 10/28/2022 | IP 71124.01 | 000725 | Radiological Hazard Assessment and Exposure Controls | |
| 50.69 - Risk Informed SSC Implementation - Peach Bottom | | | | | | 4 |

Site Inspection Activity Plan

| | | | | | | |
|--|-----------|-----------|--------------|--------|---|---|
| 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 | |
| Design Bases Assurance Inspection Teams - Peach Bottom Unit 2 and 3 | | | | | | 6 |
| 2, 3 | 4/10/2023 | 4/28/2023 | IP 71111.21M | 000713 | Design Bases Assurance Inspection (Teams) | |
| HP Instrumentation (71124.05) | | | | | | 1 |
| 2, 3 | 5/15/2023 | 5/19/2023 | IP 71124.05 | 000729 | Radiation Monitoring Instrumentation | |
| FY23 Peach Bottom Initial License Exam | | | | | | 4 |
| 2, 3 | 4/30/2023 | 5/5/2023 | OV | 000956 | FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV) | |
| 2, 3 | 5/28/2023 | 6/9/2023 | EXAD | 000500 | FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD) | |
| ISFSI Loading Inspection (60855) - PB | | | | | | 2 |
| 2, 3 | 6/26/2023 | 6/30/2023 | 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 | |
| HP REMP (71124.07) | | | | | | 1 |
| 2, 3 | 9/18/2023 | 9/22/2023 | IP 71124.07 | 000731 | Radiological Environmental Monitoring Program | |

Site Inspection Activity Plan

Inservice Inspection - PB 3R24

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 |
|------|------------|------------|----------|--------|---|