



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
475 ALLENDALE ROAD, SUITE 102
KING OF PRUSSIA, PA 19406-1415

January 4, 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: CONSTELLATION ENERGY GENERATION, LLC, PEACH BOTTOM ATOMIC
POWER STATION UNIT 1 - NRC INSPECTION REPORT NO. 05000171/2022001

Dear David Rhoades:

On December 8, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program," at the permanently shutdown Peach Bottom Atomic Power Station Unit 1. An on-site inspection was performed December 6, 2022, and additional inspection activities (in office reviews) were conducted remotely during the inspection period. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of plant walkdowns and observations by the inspector, interviews with site personnel, and a review of procedures and records. The results of the inspection were discussed with Ron DiSabatino, Plant Manager, and other members of your staff on December 8, 2022, and are described in the enclosed report. No violations of safety significance were identified.

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, its enclosure(s), and your response, if any, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response, if any, should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

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No reply to this letter is required. Please contact Steve Hammann of my staff at 610-337-5399 if you have any questions regarding this matter.

Sincerely,

Anthony Dimitriadis, Chief
Decommissioning, ISFSI, and Reactor Health
Physics Branch
Division of Radiological Safety and Security

Docket No: 05000171
License No: DPR-12

Enclosure: Inspection Report No. 05000171/2022001

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SUBJECT: CONSTELLATION ENERGY GENERATION, LLC, PEACH BOTTOM
ATOMIC POWER STATION UNIT 1 - NRC INSPECTION REPORT NO.
05000171/2022001, DATED JANUARY 4, 2023

DOCUMENT NAME: [https://usnrc.sharepoint.com/teams/Region-I-Decommissioning-Branch/Inspection Reports/Inspection Reports - Final/PB SAFSTOR 2022001.docx](https://usnrc.sharepoint.com/teams/Region-I-Decommissioning-Branch/Inspection%20Reports/Inspection%20Reports%20-%20Final/PB%20SAFSTOR%202022001.docx)

SUNSI Review Complete: SHammann **ADAMS ACCESSION NO. ML22361A124**

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 05000171/2022001
Docket No. 05000171
License No. DPR-12
Licensee: Constellation Energy Generation, LLC (Constellation)
Facility: Peach Bottom Atomic Power Station Unit 1 (Unit 1)
Address: 1848 Lay Road
Delta, Pennsylvania 17314-9032
Inspection Dates: December 5-8, 2022
Inspector: Steve Hammann, Senior Health Physicist
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security
Approved By: Anthony Dimitriadis, Chief
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Enclosure

EXECUTIVE SUMMARY

Constellation Energy Generation, LLC
Peach Bottom Atomic Power Station Unit 1
NRC Inspection Report No. 05000171/2022001

An announced decommissioning inspection of Unit 1 was completed on December 8, 2022. An on-site inspection was performed on December 6, 2022. The inspection included a review of activities related to the decommissioning performance and status, management oversight, corrective action program (CAP), and site radiological programs. The inspection consisted of interviews with Constellation personnel, a review of procedures and records, and plant walk-downs. The NRC's program for overseeing the safe storage of a shut-down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

Based on the results of this inspection, no violations of safety significance were identified.

REPORT DETAILS

1.0 Background

Unit 1 was a high temperature gas-cooled demonstration power reactor that operated from February 1966, until October 31, 1974, and has been permanently shut down and in SAFSTOR since that time. All fuel has been removed from the reactor and shipped to an offsite facility. The spent fuel pool has been drained and decontaminated, and radioactive liquids have been removed. Intrusion water that collects in the reactor building sump is periodically pumped out of the sump and transferred to the common radwaste building for Peach Bottom Units 2 and 3 for processing.

The NRC's program for overseeing the safe operation of a shut-down nuclear power reactor is described in IMC 2561.

2.0 SAFSTOR Performance and Status Review

a. Inspection Scope (Inspection Procedures (IPs) 37801, 40801, 64704, 71801, 83750, 84750, 86750)

A routine announced safety inspection was conducted on December 5-8, 2022, at Unit 1. The inspection consisted of plant walkdowns, interviews with Constellation personnel, and a review of procedures and records. The inspector reviewed the SAFSTOR program as outlined in the Updated Final Safety Analysis Report (UFSAR), Technical Specifications (TS), and procedure DC-PB-800, "Unit 1 Process Control Program," to assess the adequacy of management oversight for Unit 1 facility. Specifically, the inspector reviewed Constellation's implementation of Unit 1 programs for the SAFSTOR phase of decommissioning. The inspector also conducted a walk-down to assess the material condition of the Unit 1 buildings.

The inspector accompanied Constellation staff during the performance of the "Unit 1 Exclusion Area Inspection" semi-annual surveillance test and reviewed the results of the previous semi-annual surveillance test to ensure exclusion area barriers are intact, water intrusion is within TS limits, and to perform radiological surveys. The inspector reviewed the occupational dose records, radiological surveys, sample analysis, and environmental monitoring data to determine the effectiveness of site radiological programs.

The inspector reviewed documents and interviewed personnel to determine if issues were identified and corrected in accordance with the site's CAP. The inspector reviewed issue reports (IR's) associated with Unit 1 to determine if a sufficiently low threshold for problem identification existed, follow-up evaluations were of sufficient quality, and Constellation assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue.

b. Observations and Findings

The inspector verified that management oversight was adequate for the SAFSTOR phase of decommissioning and that no significant changes had been made to the Unit 1 SAFSTOR organization since the previous inspection. The inspector confirmed that no design changes or plant modifications were made since the previous inspection.

The inspector confirmed surveillances were performed as required by the TS. The inspector determined site radiological programs were effective in limiting exposure and intrusion water was transferred to Units 2 and 3 in accordance with plant procedures. The inspector verified there were no effluent releases from Unit 1 in the past year. The inspector verified the material condition of Unit 1 is satisfactory for the SAFSTOR phase of decommissioning.

The inspector determined that issues were identified and entered into the CAP in a timely manner and the issues were effectively screened, prioritized, and evaluated commensurate with their safety significance.

c. Conclusions

Based on the results of this inspection, no violations of safety significance were identified.

3.0 Exit Meeting Summary

On December 8, 2022, the inspector presented the inspection results to Ron DiSabatino, Plant Manager, and other members of Constellation's staff who acknowledged the inspection results. No proprietary information was retained by the inspector or documented in this report.

PARTIAL LIST OF PERSONS CONTACTED

R. DiSabatino, Plant Manager
M. Ballew, Manager of RP Operations
N. Haun, Design Engineer
A. Huber, Reg Assurance Engineer
T. McDonald, RP Tech
V. Parynis, RP Supervisor
A. Striebig, RP Tech
S. Weichler, Safety Manager

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

IR's – 04465434, 04499528, 04524137, 04530265
Daily Dose and Hours by RWP, 1/1/2022 - 12/7/2022
DC-PB-800, Rev. 0, Unit 1 Process Control Program
DC-PB-800-1000, Rev. 3, Entry Into Unit 1 During SAFSTOR Decommissioning Status
License No. DPR-12, Amendment 17
Maintenance Backlog 12/2/2022
PBAPS Unit 1 Decommissioning Status Report – 2021
Peach Bottom Atomic Power Station 2021 Occupational Exposure Report
PI-AA-120, Rev. 12, Issue Identification and Screening Process
PI-AA-125, Rev. 8, Corrective Action Program (CAP) Procedure
PI-AA-126-1001, Rev. 5, Self-Assessments
Radioactive Effluent Release Report N0.64
Radiation Work Permit PB-1-22-00121
Radiological Survey # 2022-170240
Unit 1 Drum/Tank Tracking Form, 5/24/2022 and 7/26/2022
Updated Final Safety Analysis Report, Rev. 10

LIST OF ACRONYMS USED

CAP	Corrective Action Program
10 CFR	<i>Code of Federal Regulations</i>
Constellation	Constellation Energy Generation, LLC
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Issue Report
NRC	Nuclear Regulatory Commission
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
Unit 1	Peach Bottom Atomic Power Station Unit 1