



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 11, 2024

David P. Helker
Sr. Manager, Licensing
Constellation Energy Generation, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT NO 18 REGARDING REVISING A LICENSE CONDITION AND CERTAIN TECHNICAL SPECIFICATIONS TO REMOVE RESTRICTIONS IN SUPPORT OF DECOMMISSIONING ACTIVITIES (EPID L-2023-LLA-0133)

Dear David P. Helker:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No. 18 to Facility Operating License No. DPR-12 for Peach Bottom Atomic Power Station (Peach Bottom), Unit 1. This amendment revises Technical Specifications (TSs) requirements in response to your application dated September 22, 2023 (Agencywide Documents Access and Management System Accession No. ML23265A150). The amendment modifies License Condition 2.C(1) and TS Sections 1.0, 2.1(b)1, 2.1(b)6, 2.3(b)1, and 2.3(b)2 to remove restrictions that currently limit decommissioning activities/efforts.

The licensee committed to provide an updated Post-Shutdown Decommissioning Activities Report (PSDAR) to replace the legacy Decommissioning Plan after approval of this licensing action. The updated PSDAR can facilitate demonstrating compliance with the requirements of 10 CFR 50.82(a)(6) and (7) and describe the decommissioning strategy.

During this interim period, Peach Bottom, Unit 1, committed to be maintained in the current SAFSTOR condition. Any changes that may be necessary to support decommissioning will continue to be evaluated in accordance with the requirements of 10 CFR 50.82(a)(6) and (7).

A copy of the related safety evaluation is also enclosed. A Notice of Issuance will be included in the Commission's monthly *Federal Register* notice.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "[Public inspections, exemptions, requests for withholding](#)," of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC website at <https://www.nrc.gov/reading-rm/adams.html>.

D. Helker

-2-

If you have any questions concerning the above, please contact me at (301) 415-1387 or by e-mail to Tanya.Hood@nrc.gov.

Sincerely,



Signed by Hood, Tanya
on 06/07/24

Tanya E. Hood, Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No. 50-171

Enclosures:

1. Amendment No. 18 to DPR-12
2. Safety Evaluation

cc: Listserv

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT NO 18 REGARDING REVISING A LICENSE CONDITION AND CERTAIN TECHNICAL SPECIFICATIONS TO REMOVE RESTRICTIONS IN SUPPORT OF DECOMMISSIONING ACTIVITIES (EPID L-2023-LLA-0133) DATED June 7, 2024

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DATE	04/19/2024	04/23/2024	05/23/2024
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NAME	NWarnek (Acting)	THood	
DATE	06/07/2024	06/07/2024	

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-171

PEACH BOTTOM ATOMIC POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 18
License No. DPR-12

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC (the licensee), dated September 22, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and NRC regulations set forth in 10 CFR Chapter I;
 - B. The facility will be maintained in conformity with the application, the provisions of the Act, and regulations of the NRC;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with NRC's regulations set forth in 10 CFR Chapter I;
 - D. The licensee is technically and financially qualified to engage in the activities authorized by this amended license in accordance with the rules and regulations of the NRC;
 - E. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of NRC's regulations;
 - F. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - G. The issuance of this amendment is in accordance with 10 CFR Part 51 of NRC's regulations and applicable requirements have been satisfied; and

2. Accordingly, the license is amended by changes to License No. DPR-12 and the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-12 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 18 are hereby incorporated in this license. The licensee shall maintain the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance. An updated Post-Shutdown Decommissioning Activities Report (PSDAR) will be submitted after approval of this licensing action and utilized as the process to describe and control the associated decommissioning strategy. Any changes that may be necessary to support decommissioning will continue to be evaluated in accordance with the requirements of 10 CFR 50.82(a)(6) and (7).

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Nicole S. Warnek, Acting Chief,
Reactor Decommissioning Branch,
Division of Decommissioning, Uranium
Recovery and Waste Programs,
Office of Nuclear Material Safety
and Safeguards.

Attachment:
Changes to the Facility Operating License
and Technical Specifications

Date of Issuance: June 7, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 18

PEACH BOTTOM ATOMIC POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE NO. DPR-12

DOCKET NO. 50-171

Replace the following pages of the Facility Operating License and Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

License DPR-12

Page 2

Appendix A

Page 1

Page 2

Page 3

Insert

License DPR-12

Page 2

Appendix A

Page 1

Page 2

Page 3

- H. The possession and storage of byproduct material as authorized by this amended license will be in accordance with NRC regulations in 10 CFR Part 30, including 10 CFR Section 30.33.
2. Accordingly, the license is amended by changes to License No. DPR-12 and the Technical Specifications as indicated in the attachment to this license amendment and Facility Operating License No. DPR-12 is hereby amended to read as follows:
- A. This amended license applies to the Peach Bottom Atomic Power Station, Unit 1, a permanently shutdown, high temperature, gas cooled, demonstration power reactor, and associated equipment (the facility) owned by Constellation Energy Generation, LLC. The facility is located at the licensee's site in York County, Pennsylvania, and is described in the application dated May 21, 2002.
 - B. Subject to the conditions and the requirements incorporated herein, the NRC hereby licenses Constellation Energy Generation, LLC:
 - (1) Pursuant to Section 104(b) of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities" to possess but not operate the facility.
 - (2) Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material" to possess, but not to separate, such byproduct material as may have been produced by operation of the facility.
 - C. This license shall be deemed to contain and be subject to the conditions specified in Part 20, Section 30.34 of Part 30, Section 50.59 of Part 50, 10 CFR Chapter I, and to all applicable provisions of the Act and to the rules, regulations, and orders of the NRC now or hereafter in effect and is subject to the additional conditions specified below:
 - (1) Constellation Energy Generation, LLC shall maintain and control the facility in accordance with the Defueled Safety Analysis Report (DSAR) and Post-Shutdown Decommissioning Activities Report (PSDAR). The licensee may: 1) make changes to the facility or procedures as described in the DSAR or the PSDAR and, 2) conduct tests, or experiments not described in the DSAR or PSDAR, without prior NRC approval, provided the requirements of 10 CFR 50.59 and 10 CFR 50.82(a)(6) and (7) are satisfied.
 - (2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 18 are hereby incorporated in this license. The licensee shall maintain the facility in accordance with the Technical Specifications.

APPENDIX A
to
License No. DPR-12

TECHNICAL SPECIFICATIONS
for
Peach Bottom Atomic Power Station
Unit No. 1

1.0 LOCATION AND SITE

The Peach Bottom Atomic Power Station (PBAPS) Unit No. 1 is located in Peach Bottom Township, Pennsylvania, in the western shore of the Conowingo Pond at the mouth of Rock Run Creek on a site owned by Constellation Energy Generation, LLC. These Technical Specifications apply to PBAPS Unit No.1. The PBAPS Unit No. 1 Containment Building, Spent Fuel Pool Building, and Radwaste Building shall be secured in accordance with the PBAPS Security Plan and controlled in accordance with the PBAPS Radiological Protection Program. Peach Bottom Atomic Power Station, Units 2 and 3 are also located on the site.

2.0 ADMINISTRATIVE AND PROCEDURAL SAFEGUARDS

2.1 Administrative Organizations and Controls

(a) Plant Manager

The Peach Bottom Plant Manager shall have the responsibility for administration of all Unit No. 1 functions.

(b) Controls

1. The approved Post-Shutdown Decommissioning Activities Report (PSDAR) supplements the Defueled Safety Analysis Report (DSAR) and the licensee may (i) make changes in the facility or procedures as described in the DSAR or the PSDAR and (ii) conduct tests, or experiments not described in the DSAR or PSDAR, without prior NRC approval, provided the requirements of 10 CFR 50.59 and 10 CFR 50.82(a)(6) and (7) are satisfied.

i. - viii. Deleted

2. Employees of the Peach Bottom Atomic Power Station shall report to the Peach Bottom Plant Manager or his designated representative any observed indication of change in facility status as shown by smoke, fire, tornado, flood, or attempted break-in and take any immediate action authorized.
3. Deleted
4. Security of the facility shall be included as a part of the Peach Bottom Atomic Power Station security plan.
5. In the event of a Probable Maximum Flood, the personnel access door at elevation 116' -0" shall be opened in accordance with the Peach Bottom Atomic Power Station Units 2 and 3 flood procedures.
6. Deleted
7. All radiation surveys, tests, counting work, radioactive effluent controls, and radiation exposure control measures shall be performed in accordance with written instructions and procedures that conform with the requirements of the Peach Bottom Atomic Power Station Units 2 and 3 radiation control procedures.

8. Effluent Release Limits

i. Liquid Effluents

Radioactive waste discharges to offsite locations shall not exceed the limits given in 10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 2, on an instantaneous basis.

ii. Gaseous Effluents

Gaseous effluents shall not result in offsite ground level concentrations exceeding the limits given in 10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 1, on an instantaneous basis.

9. Water Intrusion Limits

Water accumulation in the containment sump shall be limited to 500 gallons.

2.2 Records

Licensee shall keep logs and records in sufficient scope and detail to establish that the facility is being maintained within the limitations of the Part 50 Facility Operating License. The following items shall be recorded:

- (a) Results of periodic inspections
- (b) Records required by 10 CFR 50.75(g)
- (c) Reportable events

2.3 Periodic Inspections

The following inspections of the Unit No. 1 facility shall be performed by personnel knowledgeable in nuclear radiation monitoring and with the radiological hazards associated with Unit No. 1. Records of these inspections shall be maintained on file.

- (a) Deleted
- (b) Semi-Annual Inspection
 - 1. Deleted
 - 2. Conduct a radiological survey of the accessible areas of the containment building, spent fuel pool building, and radwaste building. The survey shall include radiation levels and surface contamination as well as air particulate activity.



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SAFETY EVALUATION BY
THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
RELATED TO AMENDMENT NO. 18 TO
FACILITY OPERATING LICENSE NO. DPR-12
CONSTELLATION ENERGY GENERATION, LLC
PEACH BOTTOM ATOMIC POWER STATION, UNIT 1
DOCKET NO. 50-171

1.0 INTRODUCTION

By letter dated September 22, 2023 (Agencywide Documents Access and Management System Accession No. ML23265A150), Constellation Energy Generation, LLC (the licensee) submitted a license amendment request (LAR) for changes to the Facility Operating License No. DPR-12 for Peach Bottom Atomic Power Station (Peach Bottom), Unit 1, Technical Specifications (TSs) to modify a License Condition and certain TSs to remove restrictions that currently limit decommissioning activities/efforts.

The proposed amendment would modify License Condition 2.C(1) and TSs Sections 1.0, 2.1(b)1, 2.1(b)6, 2.3(b)1, and 2.3(b)2 to remove restrictions that currently preclude decommissioning activities/efforts without prior NRC approval. The proposed changes would amend the noted License Condition and TSs to follow the Post-Shutdown Decommissioning Activities Report (PSDAR) process as governed by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.82, "Termination of license," and the guidance stipulated in Regulatory Guide (RG) 1.185, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report" (ML13140A038).

The NRC staff's initial proposed no significant hazards consideration determination was published in the *Federal Register* on February 20, 2024 (89 FR 12875).

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) staff considered the following regulatory requirements, guidance, and licensing and design-basis information during its review of the proposed change.

The regulation under 10 CFR 50.36, "Technical specifications," establishes the regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36(c)(6), TSs involving safety limits, limiting safety system settings, and limiting control system settings; limiting conditions for operation; surveillance requirements; design features; and administrative controls will be developed on a case-by-case basis.

The regulation under 10 CFR 50.59, "Changes, tests and experiments," contains requirements for the process by which licensees may make changes to their facilities and procedures as described in the safety analysis report, without prior NRC approval, under certain conditions.

The regulation under 10 CFR 50.71, "Maintenance of records, making of reports," outline the requirements for submitting and periodically updating, the final safety analysis report (FSAR), to assure that the information included in the report contains the latest information developed. This submittal shall contain all the changes necessary to reflect information and analyses submitted to the Commission by the applicant or licensee or prepared by the applicant or licensee pursuant to Commission requirement since the submittal of the original FSAR, or as appropriate, the last update to the FSAR under this section.

The regulation under 10 CFR 50.82, "Termination of license," paragraph 50.82(a)(6) establishes the regulatory requirements related to decommissioning activities that should not be performed regarding site release, environmental impacts, and adequate funding.

The regulation under 10 CFR 50.82, "Termination of license," paragraph 50.82(a)(7) establishes the regulatory requirements related to the submittal of the PSDAR indicating that the licensee shall notify the NRC, in writing and send a copy to the affected State(s), before performing any decommissioning activity inconsistent with those actions and schedules described in the PSDAR.

Appendix A to 10 CFR Part 50, "General Design Criteria for Nuclear Power Plants" (hereinafter referred to as GDC), establishes the minimum requirements for the principal design criteria for water-cooled nuclear power plants. The principal design criteria establish the necessary design, fabrication, construction, testing, and performance requirements for structures, systems, and components important to safety.

The guidance in RG 1.185, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," dated June 2013, identifies the type of information that the PSDAR must contain and establishes a standard format for the PSDAR that the NRC staff considers acceptable.

3.0 TECHNICAL EVALUATION

The NRC staff evaluated the licensee's application to determine whether the proposed TS changes are consistent with the regulations, licensing and design basis information, and regulatory guidance discussed in Section 2 of this safety evaluation.

3.1 Description of the Proposed TS Changes

Peach Bottom, Unit 1, permanently ceased operations on October 31, 1974, and is presently in SAFSTOR. SAFSTOR is a long-term storage condition for a permanently shutdown nuclear power plant. During SAFSTOR, radioactive contamination decreases substantially, making subsequent decontamination and demolition easier and reducing the amount of low level waste requiring disposal.

The previous decommissioning activities entailed removal of all plant-generated radioactive material outside of an Exclusion Area. The Exclusion Area includes the Unit 1 containment

building, fuel storage pool, and liquid waste system basement. All Peach Bottom, Unit 1, spent fuel was removed from the site and shipped to a Department of Energy (DOE) facility in Idaho. Peach Bottom, Unit 1, has been monitored and controlled in SAFSTOR in accordance with the Facility Operating License, Technical Specifications as amended, and Decommissioning Plan.

The proposed amendment modifies License Condition 2.C(1) and TSs Sections 1.0, 2.1(b)1, 2.1(b)6, 2.3(b)1, and 2.3(b)2 to remove legacy restrictions that currently preclude decommissioning activities/efforts without prior NRC approval. The proposed changes would amend the noted License Condition and TS and adopt requirements that more closely align with the current standards and guidance that govern decommissioning activities/efforts as specified in 10 CFR 50.82 and RG 1.185.

For licensees that submitted a Decommissioning Plan prior to August 28, 1996, as is the case for Peach Bottom, Unit 1, the NRC considers the Decommissioning Plan and the associated environmental review to be the PSDAR. The details associated with the decommissioning activities were filed in the application for amendment of Provisional Operating License DRP-12 for Peach Bottom, Unit 1, dated August 29, 1974 (ML17179A021).

These proposed changes allow the licensee the ability to move forward with the Peach Bottom, Unit 1, decommissioning strategy and follow the PSDAR process as governed by 10 CFR 50.82 and the guidance stipulated.

The purpose of the PSDAR is to provide the NRC and the public with a general overview of the licensee's proposed decommissioning activities and to inform the NRC staff of the licensee's expected activities and schedule so that the NRC can plan for inspections and make decisions about its oversight activities. The PSDAR is also a mechanism that informs the public of the proposed decommissioning activities before the conduct of those activities. The reviewed PSDAR supplements the Defueled Safety Analysis Report (DSAR).

3.2 Technical Conclusion

The Exclusion Area described in the Decommissioning Plan for Peach Bottom, Unit 1, was established to ensure specific plant areas are physically controlled via locked barriers to limit unauthorized access into the areas. The proposed changes to the TS replace the TS specified locked barriers with programmatic controls of the radiological buildings, Containment Building, Spent Fuel Pool Building, and Radwaste Building, in accordance with the governing Physical Security Plan and Radiological Protection Program to ensure access is limited to authorized personnel only.

Since Peach Bottom, Unit 1, currently has a Decommissioning Plan, any changes to the DSAR that may be necessary to support this licensing action will continue to be evaluated in accordance with the requirements of 10 CFR 50.59 and reflected in the DSAR as updated in accordance with the requirements of 10 CFR 50.71(e).

The NRC staff determined that the proposed changes to the noted License Condition and TS require prior NRC approval and are necessary to transition to an updated PSDAR as described in RG 1.185 to support future decommissioning activities.

The licensee committed to provide an updated PSDAR to replace the legacy Decommissioning Plan. The updated PSDAR is expected to be submitted after approval of this licensing action and utilized as the process to describe and control the associated decommissioning strategy.

Any changes that may be necessary to support decommissioning will continue to be evaluated in accordance with the requirements of 10 CFR 50.82(a)(6) and (7).

Based on the NRC staff's review of the information provided in the licensee's application, the NRC staff concludes that there is reasonable assurance that the proposed modified License Condition 2.C(1) and TS Sections 1.0, 2.1(b)1, 2.1(b)6, 2.3(b)1, and 2.3(b)2 will continue to meet the requirements of 10 CFR 50.59 and 10 CFR 50.82(a)(6) and (7) for changes to the DSAR or PSDAR. As such, the NRC staff finds it acceptable to modify License Condition 2.C(1) and TS Sections 1.0, 2.1(b)1, 2.1(b)6, 2.3(b)1, and 2.3(b)2.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland and Pennsylvania State officials were notified of the proposed issuance of the amendments on February 14, 2024. The State officials had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding as published in the *Federal Register* on February 20, 2024 (89 FR 12875). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: T. Hood
Date: June 7, 2024