[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 72-29, 50-277, and 50-278; CEQ ID EAXX-429-00-000-1740045065; NRC-2025-0033]

Constellation Energy Generation, LLC; Peach Bottom Atomic Power Station Units 2 and 3; Independent Spent Fuel Storage Installation; Environmental Assessment and Finding of No Significant Impact

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an environmental assessment (EA) and a finding of no significant impact (FONSI) for an exemption request submitted by Constellation Energy Generation, LLC (CEG) that would permit Peach Bottom Atomic Power Station (PB) Units 2 and 3 to load seven 89 multi-purpose canisters (MPC) at the PB independent spent fuel storage installation (ISFSI) in a near-term loading campaign beginning in June 2025, including the use of the HI-TRAC VW transfer cask (HI-TRAC) during loading and transport operations, where the terms, conditions, and specifications in Certificate of Compliance (CoC) No. 1032, Amendment No. 1, Revision No. 1, are not met.

DATES: The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

ADDRESSES: Please refer to Docket ID **NRC-2025-0033** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID **NRC-2025-0033**. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.
- **NRC's PDR**: The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Yen-Ju Chen, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555; telephone: 301-415-1018; email: Yen-Ju.Chen@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is reviewing an exemption request from CEG, dated January 24, 2025, and supplemented on February 4, 2025. CEG is requesting an exemption, pursuant to section 72.7 of title 10 of the *Code of Federal Regulations* (10 CFR), in paragraphs 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 72.214 that require CEG to comply with the terms, conditions, and specifications of the CoC No. 1032, Amendment No. 1, Revision No. 1. If approved, the exemption would allow CEG to use the HI-STORM Flood/Wind (FW) MPC Storage System, including the use of the HI-TRAC during loading and transport operations, for seven specific MPCs (i.e., MPC-89) at the PB ISFSI, beginning in June 2025, where the terms, conditions, and specifications in CoC No. 1032, Amendment No. 1, Revision No. 1, are not met.

II. Environmental Assessment

Background

PB is located near Delta, Pennsylvania, in York County, approximately 38 miles (61 kilometers) north of Baltimore, Maryland. Both Units 2 and 3 began operating in 1974. CEG has been storing spent fuel in the PB ISFSI under a general license as authorized by 10 CFR part 72, subpart K, “General License for Storage of Spent Fuel at Power Reactor Sites.” CEG currently uses the HI-STORM FW MPC Storage System under CoC No. 1032, Amendment No. 1, Revision No. 1, for dry storage of spent nuclear fuel in a specific MPC (i.e., MPC-89) at the PB ISFSI.

Description of the Proposed Action

The CoC is the NRC approved design for each dry cask storage system. The proposed action would exempt the applicant from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 72.214 only as these requirements pertain to the use of the seven MPC-89 in the HI-STORM FW MPC Storage System planned for a near-term loading campaign beginning in June 2025. The exemption would allow CEG to use the HI-STORM FW MPC Storage System, including the use of the HI-TRAC during loading and transport operations, for seven MPC-89 at the PB ISFSI, beginning in June 2025, despite CEG's site-specific analysis of a postulated tornado missile event for the HI-TRAC not being in compliance with the terms, conditions, and specifications in the CoC No. 1032, Amendment No. 1, Revision No. 1.

Before using a CoC, general licensees are required to perform a site-specific evaluation to establish that, once loaded with spent fuel, the cask will conform to the terms, conditions, and specifications of the CoC, including following the NRC-approved final safety analysis report (FSAR) methodology. CEG currently uses the HI-STORM FW MPC Storage System under CoC No. 1032, Amendment No. 1, Revision No. 1, for dry storage of spent nuclear fuel in MPC-89 at the PB ISFSI. The HI-STORM FW MPC Storage System CoC provides the requirements, conditions, and operating limits

necessary for use of the system to store spent fuel. One of the operating limits established in the CoC involves potential tornado-generated missile impacts. The HI-STORM FW FSAR table 2.2.5 evaluates a generic set of tornado-generated missile impacts. CEG discovered that PB's site-specific analysis performed to demonstrate protection of the loaded MPC-89, while in the HI-TRAC, against tornado-generated missiles was not performed consistent with the NRC-approved method of evaluation in the FSAR. Contrary to CEG's site-specific analysis, the NRC-approved evaluation in the FSAR does not take credit for the missile resistance offered by the HI-TRAC water jacket shell, and assumes that the small and intermediate missiles will penetrate the water jacket shell with no energy loss.

Therefore, CEG requests this exemption to allow it to conduct the planned loading and transport operations of the seven MPC-89 in the HI-STORM FW MPC Storage System at PB ISFSI beginning in June 2025, even though, because of the different tornado-generated missile analysis of the HI-TRAC in PB's site specific review, the terms, conditions, and specifications of the CoC will not be met.

Need for the Proposed Action

CEG requested this exemption in order to allow the use of the HI-STORM FW MPC Storage System, including the use of the HI-TRAC during loading and transport operations for seven MPC-89 at the PB ISFSI, beginning in June 2025, despite the terms, conditions, and specifications of the CoC not being met. Approval of the exemption request would allow CEG to effectively manage the margin to full core discharge capacity to enable refueling and offloading fuel from the reactor. It would also allow CEG to effectively manage the availability of the specialized resources and equipment needed to support competing fuel loading and operational activities at PB.

Environmental Impacts of the Proposed Action

This EA evaluates the potential environmental impacts of granting an exemption from the terms, conditions, and specifications in CoC No. 1032, Amendment No. 1, Revision No. 1. The exemption would allow CEG to use the HI-STORM FW MPC

Storage System, including the use of the HI-TRAC during loading and transport operations for seven MPC-89 at the PB ISFSI, for the loading campaign beginning in June 2025, even though the terms, conditions, and specifications of the CoC will not be met.

The potential environmental impacts of storing spent nuclear fuel in NRC-approved storage systems have been documented in previous assessments. On July 18, 1990 (55 FR 29181), the NRC amended 10 CFR part 72 to provide for the storage of spent fuel under a general license in cask designs approved by the NRC. The EA for the 1990 final rule analyzed the potential environmental impacts of using NRC-approved storage casks. The EA for the HI-STORM FW MPC Storage System, CoC No. 1032, Amendment No. 1, Revision No. 1 (80 FR 14291), published in 2015, tiers off of the EA issued for the July 18, 1990, final rule. “Tiering” off earlier EAs is a standard process encouraged by the regulations implementing the National Environmental Policy Act of 1969 (NEPA) that entails the use of impact analyses of previous EAs to bound the impacts of a proposed action where appropriate. The Holtec HI-STORM FW MPC Storage System is designed to mitigate the effects of design basis accidents that could occur during storage. Considering the specific design requirements for the accident conditions, the design of the cask would prevent loss of containment, shielding, and criticality control. If there is no loss of containment, shielding, or criticality control, the environmental impacts would not be significant.

The exemptions requested by CEG at the PB site as they relate to CoC No. 1032, Amendment No. 1, Revision No. 1, for the HI-STORM FW MPC Storage System are limited to using the HI-TRAC during loading and transport operations for the MPC-89 for the planned loading of seven canisters starting in June 2025, despite the PB site-specific analysis of tornado-generated missiles not being performed consistent with the NRC-approved method of evaluation in the CoC FSAR, and so the terms, conditions, and specifications of the CoC not being met. The staff has determined that this change in analysis will not result in either radiological or non-radiological environmental impacts

that significantly differ from the environmental impacts evaluated in the EA supporting the issuance of CoC No. 1032, Amendment No. 1, Revision No. 1. If the exemption is granted, there will be no significant change in the types or amounts of any effluents released, no significant increase in individual or cumulative public or occupational radiation exposure, and no significant increase in the potential for or consequences from radiological accidents. Accordingly, the Commission concludes that there would be no significant environmental impacts associated with the proposed action.

Alternative to the Proposed Action

The staff considered the no-action alternative. The no-action alternative (denial of the exemption request) would require CEG to delay the near-term planned loading of spent fuel in the MPC-89 in the HI-STORM FW MPC Storage System at the PB ISFSI. Delaying the loading of spent fuel in the seven casks in June 2025 could affect CEG's ability to effectively manage spent fuel pool capacity, reactor fuel offloading, and refueling. Not allowing the planned future loading campaign could also pose challenges to spent fuel heat removal and impact the availability of the specialized workforce and equipment needed to support competing fuel loading and operational activities at PB and other CEG sites.

The NRC determined that the no-action alternative would result in undue potential human health and safety impacts that could be avoided by proceeding with the proposed exemption.

Agencies Consulted

The NRC provided the Pennsylvania Bureau of Radiation Protection (PBRP), Division of Nuclear Safety, a copy of this draft EA for review by an email dated February 25, 2025. On February 26, 2025, PBRP provided its concurrence by email.

III. Finding of No Significant Impact

The environmental impacts of the proposed action have been reviewed in accordance with the requirements in 10 CFR part 51, which implement NEPA. Based upon the foregoing EA, the NRC finds that the proposed action of granting the

exemption from the regulations in 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11) and 72.214, which require the licensee to comply with the terms, conditions, and specifications of the CoC, in this case limited to the use of the Holtec HI-STORM FW MPC Storage System, including the use of the HI-TRAC during loading and transport operations, for the specific near-term future loading of seven MPC-89 beginning in June 2025, would not significantly impact the quality of the human environment. Accordingly, the NRC has determined that a FONSI is appropriate, and an environmental impact statement is not warranted.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through ADAMS, as indicated.

Document Description	ADAMS Accession No. or *Federal Register* notice
CEG's request for exemption, dated January 24, 2025.	ML25024A148
CEG's request for exemption, supplemented, dated February 4, 2025.	ML25036A335
Certificate of Compliance No. 1032, Amendment No. 1, Revision 1, dated May 29, 2015.	ML15152A358 (Package)
Final Safety Analysis Report on the HI-STORM FW MPC Storage System, Revision 4, dated June 24, 2015.	ML24327A229
10 CFR part 72 amendment to allow spent fuel storage in NRC-approved casks, published July 18, 1990.	55 FR 29181
EA for 10 CFR part 72 amendment to allow spent fuel storage in NRC-approved casks, dated March 8, 1989.	ML051230231
Final rule for List of Approved Spent Fuel Storage Casks: Holtec HI-STORM Flood/Wind System; Certificate of Compliance No. 1032, Amendment No. 1, Revision No. 1, published March 19, 2015.	80 FR 14291
NRC email to PBRP, "Request for State review of an environmental assessment – Peach Bottom units 2 and 3," dated February 25, 2025.	ML25058A255

PBRP email to NRC, “State’s response to Request for State review of an environmental assessment – Peach Bottom units 2 and 3,” dated February 26, 2025.	ML25058A257

Dated: March 3, 2025.

For the Nuclear Regulatory Commission.

Thomas Boyce,
Acting Chief,
Storage and Transportation Licensing Branch,
Division of Fuel Management,
Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2025-03616 Filed: 3/5/2025 8:45 am; Publication Date: 3/6/2025]