



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

January 27, 2026

Christopher H. Mudrick
Senior Vice President
and Chief Nuclear Officer
Constellation Energy Generation, LLC
President
Constellation Nuclear
200 Energy Way, KSA-3N
Kennett Square, PA 19348

**SUBJECT: CHRISTOPHER M. CRANE CLEAN ENERGY CENTER – DECOMMISSIONING
INSPECTION REPORT 05000289/2025001 AND RESTART INSPECTION
REPORT 05000289/2025002**

Dear Christopher Mudrick:

On September 26, 2019, the Christopher M. Crane Clean Energy Center (CCEC), formerly Three Mile Island Nuclear Station, Unit 1, permanently ceased power operations and removed all fuel from the reactor, as certified in a letter to the U. S. Nuclear Regulatory Commission (NRC) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19269E480). On November 19, 2024, Constellation Energy Generation, LLC (Constellation) submitted a letter to the NRC requesting exemptions from certain portions of the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(2) to pursue the potential reauthorization of power operations at CCEC (ML24324A048). The NRC's initial acceptance to review CCEC's request for exemptions was documented in a letter on December 20, 2024 (ML24355A057). This restart inspection report is the first report documenting NRC inspections to review Constellation's restart activities at CCEC. The NRC completed multiple inspections between January 1, 2025, and December 31, 2025. The NRC will continue to issue restart inspection reports while the facility undergoes the process to return to power operations.

On December 18, 2025, the NRC completed an inspection at CCEC. On December 22, 2025, the NRC discussed the results of this inspection with David E. Lewis, Acting Plant Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Erin E. Carfang, Chief
Engineering Branch 1
Division of Operating Reactor Safety

Docket No. 05000289
License No. DPR-50

Enclosure:
As stated

cc w/ encl: Distribution via GovDelivery

SUBJECT: CHRISTOPHER M. CRANE CLEAN ENERGY CENTER – DECOMMISSIONING
INSPECTION REPORT 05000289/2025001 AND RESTART INSPECTION
REPORT 05000289/2025002 DATED JANUARY 27, 2026

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DOCUMENT NAME: <https://usnrc.sharepoint.com/sites/CraneRestartTeam/Shared%20Documents/Inspection%20Reports/CCEC%20Decom%20IR%202025001%20and%20Restart%20IR%202025002.docx>

ADAMS ACCESSION NUMBER: ML26027A035

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000289

License Number: DPR-50

Report Number: 05000289/2025001 and 05000289/2025002

Enterprise Identifier: I-2025-001-0075 and I-2025-002-0079

Licensee: Constellation Energy Generation, LLC

Facility: Christopher M. Crane Clean Energy Center

Location: Middletown, PA

Inspection Dates: January 1, 2025 to December 31, 2025

Inspectors: H. Anagnostopoulos, CHP, Senior Health Physicist
N. Floyd, Senior Reactor Inspector
J. Kulp, Senior Reactor Inspector
K. Warner, CHP, Senior Health Physicist

Approved By: Erin E. Carfang, Chief
Engineering Branch 1
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) performed inspections of the licensee's activities at the Christopher M. Crane Clean Energy Center (CCEC), in accordance with Inspection Manual Chapter (IMC) 2562, "Light-Water Reactor Inspection Program for Restart of Reactor Facilities Following Permanent Cessation of Power Operations." This inspection program assesses key aspects of licensee operational readiness in a risk-informed manner across the strategic performance areas of reactor safety, radiation safety, and safeguards to support the adequate protection of public health and safety.

This report covers announced inspections completed by regional inspectors.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

CCEC, formerly Three Mile Island Nuclear Station, Unit 1, permanently ceased power operations and removed all fuel from the reactor, as certified in a letter to the NRC on September 26, 2019. Constellation Energy Generation, LLC (Constellation), the licensee for CCEC, submitted a letter to the NRC on November 19, 2024, requesting exemptions from certain portions of the requirements of 10 CFR 50.82(a)(2) to pursue the potential reauthorization of power operations. The NRC is conducting inspections to evaluate and assess the licensee's activities for potential restoration to an operational status.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the referenced inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Inspection activities were conducted in accordance with IMC 2562, "Light-Water Reactor Inspection Program for Restart of Reactor Facilities Following Permanent Cessation of Power Operations." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.24 - Testing and Maintenance of Equipment Important to Risk

Testing and Maintenance of Equipment Important to Risk (1 Sample)

- (1) The inspectors observed activities to return the polar crane, MIS-A-1, to operation from September 16 to 18, 2025. The inspectors reviewed the procedures used to perform initial inspections of the crane and verified that they reflected the requirements of ASME B30.2, Overhead and Gantry Cranes. The inspectors reviewed condition reports generated from inspection results which documented deficiencies in the crane and verified the condition reports were dispositioned accordingly. The inspectors reviewed design documentation and calculations to verify the basis for the polar crane capacity. The inspectors reviewed the vendor's manual instructions and test procedures used to adjust the hoist brake assembly and test the crane. Major work performed on the crane included rebuilding the main hoist mechanical brake and replacing the crane wheel bearings. The inspectors witnessed the post-maintenance test for the main hoist mechanical brake consisting of a 100 percent load test of the polar crane.

RADIATION SAFETY

71124 - Radiation Safety Public and Occupational

CCEC is currently in Category 9, "Active Transition to Restart," under IMC 2561, "Decommissioning Power Reactor Inspection Program." Under this category, IMC 2561 is put in abeyance, however; adequate inspections shall be completed to meet the objective of ensuring that licensee activities are conducted safely and site operations are in conformance with applicable regulatory requirements. Between January 1 and December 31, 2025, inspectors

conducted inspection activities in the areas of occupational and public radiation protection, fire protection, and site operations to meet applicable objectives of IP 71124.01, "Radiological Hazard Assessment and Exposure Controls," IP 71124.03, "In-Plant Airborne Radioactivity Control and Mitigation," and applicable procedures in IMC 2561. The inspectors coordinated their efforts with the NRC Crane Restart Team to avoid overlapping of inspection efforts.

Between April 1 and June 30, 2025, the inspectors performed a radioactive waste treatment, and effluent and environmental monitoring inspection for the combined Three Mile Island program. Further details can be found in Inspection Report Number 05000320/2025002 (ADAMS Accession No. ML25204A005).

On July 22, 2025, the inspectors observed transportation of an Avantec waste liner (#5) from the CCEC auxiliary building to the waste handling and packaging facility. The inspectors observed CCEC implement high radiation area controls, a shipping survey of the liner, and rigging, movement, and final placement of the liner by a truck and transport cask into a storage cell. The inspectors reviewed the material condition and radiological postings of the storage cells.

On November 19, 2025, the inspectors conducted a walkdown of the accessible areas of the auxiliary and fuel handling buildings focusing on fire protection, occupational radiation controls, and material control and accountability.

Between December 8 and 15, 2025, the inspectors conducted document reviews in the topical areas of fire protection, occupational radiation control, transportation, material control, and effluent and environmental monitoring, including the following:

- A risk-informed selection of issue reports in the areas of occupational radiation control, environmental monitoring, transportation, and fire protection
- A sampling of fire protection surveillances listed in Procedure 1038, Administrative Controls Fire Protection Program, Revision 98
- 2025 Crane Radiation Protection 10 CFR Part 37 Compliance Program
- Waste packages for shipments RW-25-001-I, RS-24-041-I, and RM-25-046-I
- Qualifications for the newest radioactive shipper at CCEC
- Procedure RP-AA-228, 10 CFR 50.75(g) Spill List and Documentation, Revision 10
- Radiological work control documents and radiological surveys for the fuel transfer canal concrete removal work conducted in the fall of 2025

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On September 18, 2025, the inspectors presented the reactor building polar crane inspection results to Craig Smith, Senior Manager Site Regulatory Assurance, and other members of the licensee staff.

- On December 22, 2025, the inspectors presented the restart inspection results and the combined decommissioning and radiation protection inspection results to David Lewis, Acting Plant Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.24	Calculations	1:01.05	Crane Support	10/29/1972
	Corrective Action Documents	4896741		
	Work Orders	50977956 Task 26	MIS-A-1 PMT/Operational Load Test RB Polar Crane	
		50977956 Task 50	MIS-A-1 Vendor to repair ratchet assembly	
71124	ALARA Plans	25-004	Fuel Transfer Tube Concrete Removal	10/01/2025
	Miscellaneous		2025 Crane RP 10 CFR 37/RP-AA-500-1003 Compliance Program	12/02/2025
	Procedures	RP-AA-228	10 CFR 50.75(g) and 10 CFR 72.30(d) Spill List and Documentation	Revision 10
		RP-AA-401	ALARA Post Job Review, Fuel transfer Tube Concrete Removal	11/19/2025
		RP-AA-441, Attachment 2	TEDE ALARA Evaluation Screening Worksheet, Transfer Tube Concrete Removal	10/01/2025