



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 23, 2024

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: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 – FIRE
PROTECTION TEAM INSPECTION REPORT 05000277/2024010 AND
05000278/2024010

Dear David Rhoades:

On August 8, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Peach Bottom Atomic Power Station, Units 2 and 3 and discussed the results of this inspection with Martin Bonifanti, Site Vice President, 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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Glenn T. Dentel, Chief
Engineering Branch 2
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: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 – FIRE PROTECTION TEAM INSPECTION REPORT 05000277/2024010 AND 05000278/2024010 DATED AUGUST 23, 2024

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DOCUMENT NAME: https://usnrc.sharepoint.com/teams/EngineeringBranch2/Shared Documents/_Fire Protection/Fire Protection IRs/Peach Bottom/Peach Bottom FP IR 2024-010.docx

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Numbers: 05000277 and 05000278

License Numbers: DPR-44 and DPR-56

Report Numbers: 05000277/2024010 and 05000278/2024010

Enterprise Identifier: I-2024-010-0029

Licensee: Constellation Energy Generation, LLC

Facility: Peach Bottom Atomic Power Station, Units 2 and 3

Location: Delta, PA 17314

Inspection Dates: July 22, 2024 to August 8, 2024

Inspectors: J. Ayala, Senior Health Physicist
L. Cline, Senior Reactor Inspector
L. Dumont, Senior Reactor Inspector

Approved By: Glenn T. Dentel, Chief
Engineering Branch 2
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a fire protection team inspection at Peach Bottom Atomic Power Station, Units 2 and 3, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

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

Additional Tracking Items

None.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the 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>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." 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

71111.21N.05 - Fire Protection Team Inspection (FPTI)

Structures, Systems, and Components (SSCs) Credited for Fire Prevention, Detection, Suppression, or Post-Fire Safe Shutdown Review (IP Section 03.01) (4 Samples)

The inspectors verified that components and/or systems will function as required to support the credited functions stated for each sample. Additional inspection considerations are located in the fire hazards analysis (FHA) or safe shutdown analysis (SSA).

- (1) Units 2 and 3 Fire Barrier System
- (2) Units 2 and 3 Fire Detection/Alarm System
- (3) Units 2 and 3 Reactor Core Isolation Cooling System
- (4) Units 2 and 3 Emergency Diesel Generators

Fire Protection Program Administrative Controls (IP Section 03.02) (2 Samples)

The inspectors verified that the selected control or process is implemented in accordance with the licensee's current licensing basis. If applicable, ensure that the licensee's Fire Protection Program (FPP) contains adequate procedures to implement the selected administrative control. Verify that the selected administrative control meets the requirements of all committed industry standards.

- (1) Fire Brigade Training, Drills, Qualifications, and Equipment
- (2) Combustible Material Control Program

Fire Protection Program Changes/Modifications (IP Section 03.03) (2 Samples)

The inspectors verified the following:

- a. Changes to the approved FPP do not constitute an adverse effect on the ability to safely shutdown.
- b. The adequacy of the design modification, if applicable.
- c. Assumptions and performance capability stated in the SSA have not been degraded through changes or modifications.

- d. The FPP documents, such as the Updated Final Safety Analysis Report, fire protection report, FHA, and SSA were updated consistent with the FPP or design change.
 - e. Post-fire safe shutdown operating procedures, such as abnormal operating procedures, affected by the modification were updated.
- (1) EC 633145 - Combustible Free Zone Evaluation - Select Combustible Free Zones (CFZ) and Transient Combustible Free Zones (TCFZ) Elimination
 - (2) EC 635066 - Fire Protection Engineering Evaluation for Sprinkler head 50-year testing

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On August 8, 2024, the inspectors presented the fire protection team inspection results to Martin Bonifanti, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Corrective Action Documents	02575081 04070074 04292629 04406048 04449094 04454049 04455608 04455689 04457158 04459888 04467697 04470781 04472989 04499193 04514922 04530669 04531509 04532084 04709784 04723586 04789477		
	Corrective Action Documents Resulting from Inspection	04788765 04787506 04789270 04789477 04789500 04789757 04790308 04792090 04795063 04795064 04795065		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Drawings	A-167, Sheet 1	Fire Detection and Suppression - Floor Plan at Elevation 116'-0"	Revision 009
		A-167, Sheet 2	Fire Detection and Suppression - Floor Plan at Elevation 116'-0"	Revision 000
		A-168	Fire Detection and Suppression - Floor Plan at Elevation 135'-0"	Revision 013
		A-169	Fire Detection and Suppression - Floor Plan at Elevation 165'-0"	Revision 009
		E-1023	Electrical Layout #2 SU Transformer & Switchgear and #3 SU Switchgear Areas Sheet 1	Revision 019
		E-1074	Lighting & Communication Layout, Reactor & Radwaste Building Unit 2 Plan	Revision 029
	Engineering Changes	EC 633228	PBAPS Alternate Shutdown Radio System Replacement	6/9/2021
	Engineering Evaluations	PEAF-0016	Peach Bottom Atomic Power Station Combustible Free Zone Evaluation	Revision 000
		PF-0007	Combustible Loading Analysis	Revision 005
	Miscellaneous	EPRI 3002016097	Guideline for Assessing Sprinklers Used in Nuclear Power Plants	June 2020
		GEH-908P	Control and Instrument Switches	Revision 000
		RT-O-023-760-2	HPCI Valve and Component Test from Alternative Control Panel	5/7/2024
		ST-M-037-315-3	Visual Walk Around Inspection of Fire Barriers Located in High Radiations Area	11/2/2017
		ST-O-052-204-2	E4 Diesel Generator Slow Start and Full Load Test	7/25/2-24
	Procedures	CC-AA-102	Design Input and Configuration Change Impact Screening	Revision 035
		CC-AA-209	Fire Protection Program Configuration Change Review	Revision 007
		CC-AA-211	Fire Protection Program	Revision 009
		CC-AA-211-1001	Fire Protection Engineering Evaluations (86-10)	Revision 002
		HU-AA-104-101	Procedure Use and Adherence	Revision 007
		LS-AA-128	Regulatory Review of Proposed Changes to the Approved Fire Protection Program	Revision 003
		MA-AA-716-026	Station Housekeeping and Material Control Program	Revision 023
	OP-AA-201-001	Fire Marshall Tours	Revision 009	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		OP-AA-201-003	Fire Drill Performance	Revision 022
		OP-AA-201-005	Fire Brigade Qualification	Revision 011
		OP-AA-201-008	Pre-Fire Plan Manual	Revision 006
		OP-AA-201-009	Control of Transient Combustible Material	Revision 030
		OP-AA-201-009	Control of Transient Combustible Material	Revision 031
		PI-AA-120	Issue Identification and Screening Processs	Revision 013
		PI-AA-125	Corrective Action Program Procedure	Rev 009
	Work Orders	4852274 4940309 4940310 4955926 4975018 4989859 5068430 5125470 5189603 5207438 5284002 5396507		