

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, ILLINOIS 60532-4352

February 28, 2024

David Rhoades Senior Vice President Constellation Energy Generation, LLC President and Chief Nuclear Officer (CNO) Constellation Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BRAIDWOOD STATION, UNITS 1 AND 2 (REPORT 05000456/2023006 AND 05000457/2023006)

Dear David Rhodes:

The NRC has completed its end-of-cycle performance assessment of Braidwood Station, Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2023, through December 31, 2023. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety. The baseline inspection program was completed at your facility as defined in Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase."

The NRC determined the performance at Braidwood Station, Units 1 and 2, during the most recent quarter was within the Licensee Response Column, the highest performance category of the NRC's Reactor Oversight Process (ROP) Action Matrix, because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2025. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last 12 months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

The NRC plans to perform Inspection Procedure (IP) 71003, "Post-Approval Site Inspection for License Renewal," on Unit 1 in 2024.

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 will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room). Please contact me at 630-829-9833 with any questions you have regarding this letter.

Sincerely,

Suchard A Skolarti Signed by Skokowski, Richard on 02/28/24

Richard Skokowski, Chief Reactor Projects Branch 3 Division of Operating Reactor Safety

Docket Nos. 05000456, 05000457 License Nos. NPF-72 and NPF-77

Enclosure: Inspection Plan

cc: Distribution via LISTSERV®

Letter to David Rhoades from Richard Skokowski dated February 28, 2024.

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ADAMS Accession Number: ML24059A095

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DATE	02/28/2024		02/28/2024					

OFFICIAL RECORD COPY

Site Inspection Activity Plan

07200073 - Braidwood (ISFSI)

01/01/2024 - 12/31/2025

Unit	Start	End	Activity	CAC	Title		Staff Count
ISFSI Cask Loading Inspection					2		
	5/19/2025	5/23/2025	IP 60855	001001	Operation Of An ISFSI		

Site Inspection Activity Plan

Braidwood

01/01/2024 - 12/31/2025

Unit	Start	End	Activity	CAC	Title Staff	f Count
Corpo	rate Security	Baseline Insp	ection			3
1,2	1/22/2024	1/26/2024	IP 71130.01	000733	Access Authorization	
Radiat	ion Protectio	n Baseline Ins	spection			
1,2	1/29/2024	2/2/2024	IP 71124.05	000729	Radiation Monitoring Instrumentation	
1,2	1/29/2024	2/2/2024	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
Cyber	Security Insp	ection				3
1,2	1/29/2024	2/2/2024	IP 71130.10	000741	Cybersecurity	
Braidv	vood March 2	024 Initial Lic	ense Exam			Ľ
1,2	2/11/2024	2/17/2024	OV	000956	FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (C	OV)
1,2	3/17/2024	3/23/2024	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)	
1,2	3/24/2024	3/30/2024	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)	
Licens	e Renewal Ph	ase 1				
1	4/15/2024	5/3/2024	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
Inserv	ice Inspectior	n Unit 1				
1	• 4/15/2024		IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Radiat	ion Protectio	n Baseline Ins	pection			
1,2		4/26/2024	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1,2	4/22/2024	4/26/2024	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
Securi	ty Baseline In	spection				
1,2	5/13/2024	5/17/2024	IP 71130.14	000743	Review of Power Reactor Target Sets	
Bienni	al Problem Id	lentification a	nd Resolution Insp	ection		2
1,2	7/8/2024	7/26/2024	IP 71152B	000747	Problem Identification and Resolution	
Emerg	ency Prepare	dness Exercis	e Inspection / Perf	ormance Inc	licator Verification	2
1,2	7/15/2024	7/19/2024	IP 71114.01	000716	Exercise Evaluation	
1,2	7/15/2024	7/19/2024	IP 71151	001397	Performance Indicator Verification	
Securi	ty Baseline In	spection				
1,2	8/12/2024	8/16/2024	IP 71130.01	000733	Access Authorization	
1,2	8/12/2024	8/16/2024	IP 71130.02	000734	Access Control	
1,2	8/12/2024	8/16/2024	IP 71130.09	001656	Security Plan Changes	
1,2	8/12/2024	8/16/2024	IP 71151	001338	Performance Indicator Verification	
1,2	9/30/2024	10/4/2024	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
Inserv	ice Inspectior	n Unit 2				
2	-	10/25/2024	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
_		2024 0.00.09				2 of /

Site Inspection Activity Plan

Radia	tion Protectio	n Baseline Ins	pection			1
1,2	10/7/2024	10/11/2024	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1,2	10/7/2024	10/11/2024	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	10/7/2024	10/11/2024	IP 71124.04	000728	Occupational Dose Assessment	
1,2	10/7/2024	10/11/2024	IP 71151	000746	Performance Indicator Verification	
Eplan	and EAL Char	nges Review				1
1,2	11/1/2024	12/31/2024	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
Funct	ional Enginee	ring Inspectio	n - Fire Protection			3
1,2	11/18/2024	12/6/2024	IP 71111.21N.05	001646	Fire Protection Team Inspection (FPTI)	
Comp	orehensive Eng	jineering Tear	n Inspection			7
1,2	1/27/2025	2/14/2025	IP 71111.21M	000713	Comprehensive Engineering Team Inspection	
Force	-On-Force Pla	nning and Exe	ercise Weeks - BRD			5
1,2	3/10/2025	3/14/2025	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
1,2	3/31/2025	4/4/2025	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
Emerg	gency Prepare	dness Prograi	n Inspection / Perfo	ormance In	dicator Review	1
1,2	3/17/2025	3/21/2025	IP 71114.02	000717	Alert and Notification System Testing	
1,2	3/17/2025	3/21/2025	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1,2	3/17/2025	3/21/2025	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1,2	3/17/2025	3/21/2025	IP 71151	001397	Performance Indicator Verification	
Mater	rial Control an	d Accountabi	lity Triennial Inspec	tion		1
1,2	7/20/2025	9/6/2025	IP 71130.11	000742	Material Control and Accounting (MC&A)	
Radia	tion Protectio	n Baseline Ins	pection			1
1,2	7/21/2025	7/25/2025	IP 71124.07	000731	Radiological Environmental Monitoring Program	
1,2	7/21/2025	7/25/2025	IP 71124.08	000732	Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation	
1,2	7/21/2025	7/25/2025	IP 71151	000746	Performance Indicator Verification	
Braid	wood 2025 Bi	ennial Requali	ification Program Ir	spection		2
1,2	8/24/2025	8/30/2025	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
Secur	ity Baseline In	spection				1
1,2	8/25/2025	8/29/2025	IP 71130.02	000734	Access Control	
1,2	8/25/2025	8/29/2025	IP 71151	001338	Performance Indicator Verification	
1,2	9/29/2025	10/3/2025	IP 71130.07	000739	Security Training	
1,2	9/29/2025	10/3/2025	IP 71130.09	001656	Security Plan Changes	
Inserv	vice Inspectior	n Unit 1				1
1	10/6/2025	10/24/2025	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Radia	tion Protectio	n Baseline Ins	pection			1

Radiation Protection Baseline Inspection

Sit	Site Inspection Activity Plan								
1,2	10/6/2025	10/10/2025	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls				
1,2	10/6/2025	10/10/2025	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation				
Braidw	Braidwood December 2025 Initial License Examination								
1,2	10/26/2025	11/1/2025	OV	000956	FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV)				
1,2	11/30/2025	12/13/2025	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)				
Eplan a	Eplan and EAL Changes Review								
1,2	11/1/2025	12/31/2025	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes				