



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

March 2, 2022

Mr. 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 05000456/2021006 AND 05000457/2021006)

Dear Mr. Rhoades:

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, 2021, through December 31, 2021. 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, 2023. 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.

In response to the COVID-19 public health emergency (PHE), the NRC adjusted inspection plans and schedules in order to safeguard the health and safety of both NRC and licensee staff while still effectively implementing the ROP. While the PHE continues, overall conditions throughout the country support performance of our inspection and oversight activities to return to normal onsite presence by our resident and region-based inspectors and completion of nominal baseline inspection samples. We continue to monitor site-specific conditions and as discussed in our November 2, 2021, memo, "Implementation of Inspection Programs Following Re-Entry from the Public Health Emergency for the Reactor Safety Program" (ML21295A302), it may be necessary to alter how and when we perform our inspection and oversight activities as we balance the importance of protecting the health and safety of our staff with the need to

conduct effective oversight that supports the NRC's critical safety mission. For inspections requiring extensive coordination with offsite organizations, such as evaluated emergency preparedness exercises, NRC guidance and frequently asked questions for security and emergency preparedness can be found here: <https://www.nrc.gov/about-nrc/covid-19/security-ep/>. Similarly, the NRC has developed guidance if force-on-force inspections cannot be completed as scheduled due to an emergency, such as the COVID-19 PHE. These changes help ensure the health and safety of both NRC and licensee staff while maintaining the NRC's important safety and security mission during the COVID-19 PHE. The attached inspection plan is accurate on the date of issuance but remains subject to change based on approval of potential exemption requests or other changes needed due to changing conditions in the COVID-19 PHE. NRC staff will contact your appropriate regulatory affairs staff in order to coordinate inspection planning and scheduling.

Inspection procedure (IP) 71111.21N.03 is included in the inspection plan as a placeholder for your next Design Basis Assurance Inspection (Programs), which will be focused on Commercial Grade Dedication. The inspection procedure will be developed and made publicly available before these inspections begin.

All of the NRC inspections that occurred at your facility in 2021 were performed while the operating license was held by Exelon Generation Company, LLC. However, on February 1, 2022, the operating license was transferred to Constellation Energy Generation, LLC (Constellation), as documented in a license amendment (ML22021B660). As such, this letter, and future communications regarding your facility will be addressed to and refer to the licensee as Constellation.

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 Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 630-829-9707 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Hironori Peterson, Chief  
Branch 3  
Division of Reactor Projects

Docket Nos. 05000456, 05000457,  
and 07200073  
License Nos. NPF-72 and NPF-77

Enclosure:  
Inspection Plan

cc: Distribution via LISTSERV®

Letter to David Rhoades from Hironori Peterson dated March 2, 2022.

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BRAIDWOOD STATION,  
UNITS 1 AND 2 (REPORT 05000456/2021006 AND 05000457/2021006)

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OFFICE	RIII	RIII			
NAME	NShaw:sw	HPeterson			
DATE	02/28/2022	02/28/2022			

**OFFICIAL RECORD COPY**

# Site Inspection Activity Plan

## 07200073 - Braidwood (ISFSI)

01/01/2022 - 12/31/2023

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>ISFSI Cask Loading Inspection</b>						2
	5/16/2022	5/20/2022	IP 60855	001001	Operation Of An ISFSI	

# Site Inspection Activity Plan

## Braidwood

01/01/2022 - 12/31/2023

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>Material Control and Accounting Triennial</b>						2
1,2	1/1/2022	12/31/2022	IP 71130.11	000742	Material Control and Accounting (MC&A)	
<b>Braidwood March 2022 Initial License Exam</b>						4
1,2	1/30/2022	2/5/2022	OV	000956	FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1,2	2/27/2022	3/5/2022	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)	
1,2	3/6/2022	3/12/2022	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)	
<b>Emergency Preparedness Exercise Inspection / Performance Indicator Verification</b>						4
1,2	2/28/2022	3/4/2022	IP 71114.01	000716	Exercise Evaluation	
1,2	2/28/2022	3/4/2022	IP 71151	001397	Performance Indicator Verification	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	3/28/2022	4/1/2022	IP 71124.05	000729	Radiation Monitoring Instrumentation	
<b>Design Bases Assurance Inspection - Team</b>						6
1,2	4/18/2022	5/6/2022	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
<b>Cyber Security Inspection</b>						4
1,2	5/16/2022	5/20/2022	IP 71130.10	000741	Cybersecurity	
<b>Security Baseline Inspection</b>						1
1,2	4/11/2022	4/15/2022	IP 71130.14	000743	Review of Power Reactor Target Sets	
1,2	5/23/2022	5/27/2022	IP 71130.02	000734	Access Control	
1,2	5/23/2022	6/24/2022	IP 71130.09	001656	Security Plan Changes	
1,2	5/23/2022	5/27/2022	IP 71151	001338	Performance Indicator Verification	
1,2	6/20/2022	6/24/2022	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
<b>Biennial Problem Identification and Resolution</b>						4
1,2	6/6/2022	6/24/2022	IP 71152B	000747	Problem Identification and Resolution	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	6/13/2022	6/17/2022	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	6/13/2022	6/17/2022	IP 71124.04	000728	Occupational Dose Assessment	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	8/1/2022	8/5/2022	IP 71124.08	000732	Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation	
<b>FORCE-ON-FORCE PLANNING AND EXERCISE WEEKS - BRD</b>						6
1,2	8/1/2022	8/5/2022	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
1,2	8/22/2022	8/26/2022	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
<b>Inservice Inspection Braidwood Unit 1</b>						1

# Site Inspection Activity Plan

1	10/3/2022	10/21/2022	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	10/3/2022	10/7/2022	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1,2	10/3/2022	10/7/2022	IP 71151	000746	Performance Indicator Verification	
<b>Corporate Security Baseline Inspection</b>						3
1,2	1/23/2023	1/27/2023	IP 71130.08	000740	Fitness For Duty Program	
<b>Design Basis Assurance Inspection (Programs)</b>						3
1,2	1/30/2023	2/17/2023	IP 71111.21N.03		Design Bases Assurance Inspections (Programs) 2023 (Commercial Grade Dedication)	
<b>Security Baseline Inspection</b>						1
1,2	2/13/2023	2/17/2023	IP 71130.02	000734	Access Control	
1,2	2/13/2023	2/17/2023	IP 71130.08	000740	Fitness For Duty Program	
1,2	3/6/2023	3/10/2023	IP 71130.07	000739	Security Training	
1,2	3/6/2023	3/10/2023	IP 71130.09	001656	Security Plan Changes	
1,2	3/6/2023	3/10/2023	IP 71151	001338	Performance Indicator Verification	
<b>Emergency Preparedness Baseline Inspection / Performance Indicator Verification</b>						1
1,2	2/20/2023	2/24/2023	IP 71114.02	000717	Alert and Notification System Testing	
1,2	2/20/2023	2/24/2023	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1,2	2/20/2023	2/24/2023	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1,2	2/20/2023	2/24/2023	IP 71151	001397	Performance Indicator Verification	
<b>Unit 2 Inservice Inspection</b>						1
2	4/17/2023	5/5/2023	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	4/17/2023	4/21/2023	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
<b>Security Baseline Inspection</b>						2
1,2	6/5/2023	6/16/2023	IP 71130.05	000737	Protective Strategy Evaluation	
<b>Evaluations of Changes, Tests and Experiments</b>						3
1,2	7/10/2023	7/14/2023	IP 71111.17T	000709	Evaluations of Changes, Tests, and Experiments	
<b>Triennial Heat Sink Inspection</b>						1
1,2	8/21/2023	8/25/2023	IP 71111.07T	000700	Heat Exchanger/Sink Performance	
<b>Braidwood 2023 Biennial Licensed Operator Requalification Program Inspection</b>						2
1,2	8/21/2023	8/27/2023	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
<b>Radiation Protection Baseline Inspection</b>						1
1,2	9/18/2023	9/22/2023	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	9/18/2023	9/22/2023	IP 71151	000746	Performance Indicator Verification	

**Braidwood December 2023 Initial License Exam**

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# Site Inspection Activity Plan

1,2	11/12/2023	11/18/2023	OV	000956	FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV)
1,2	12/10/2023	12/16/2023	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)
1,2	12/17/2023	12/23/2023	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)

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