



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

December 22, 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: BYRON STATION – CYBER SECURITY INSPECTION REPORT  
05000454/2022403 AND 05000455/2022403

Dear David Rhoades:

On November 17, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Byron Station and discussed the results of this inspection with Mr. J. Cunzeman, Engineering Director 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,

A handwritten signature in cursive script that reads "Richard A. Skokowski".

Signed by Skokowski, Richard  
on 12/22/22

Richard A. Skokowski, Chief  
Engineering Branch 2  
Division of Operating Reactor Safety

Docket Nos. 05000454 and 05000455  
License Nos. NPF-37 and NPF-66

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to David Rhoades from Richard A. Skokowski dated December 22, 2022.

SUBJECT: BYRON STATION – CYBER SECURITY INSPECTION REPORT  
05000454/2022403 AND 05000455/2022403

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

Docket Numbers: 05000454 and 05000455

License Numbers: NPF-37 and NPF-66

Report Numbers: 05000454/2022403 and 05000455/2022403

Enterprise Identifier: I-2022-403-0034

Licensee: Constellation Energy Generation, LLC

Facility: Byron Station

Location: Byron, IL

Inspection Dates: November 14, 2022 to November 17, 2022

Inspectors: B. Barro, Cyber Security Analyst  
A. Dahbur, Senior Reactor Inspector  
J. Gilliam, Senior Reactor Inspector  
A. Konkal, Contractor

Approved By: Richard A. Skokowski, 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 cyber security inspection at Byron Station, 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) 2201, "Security Inspection Program for Commercial Nuclear Power Reactors." 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.

## **SAFEGUARDS**

### 71130.10 - Cybersecurity

The inspectors reviewed implementation of Byron Generating Station's Cyber Security Plan (CSP) and focused on evaluating changes to the program, critical systems, and CDAs.

### Cybersecurity (1 Sample)

- (1) The following IP sections were completed and constitute completion of 1 sample:
  - 03.01, "Review Ongoing Monitoring and Assessment Activities"
  - 03.02, "Verify Defense-in-Depth Protective Strategies"
  - 03.03, "Review of Configuration Management Change Control"
  - 03.04, "Review of Cyber Security Program"
  - 03.05, "Evaluation of Corrective Actions"

In addition to the systems and programs that have been added or modified since the last cyber security inspection, the following systems were selected for inspection.

#### Unit 0

- Security (IS), Security

#### Unit 1 & 2

- Feedwater (FW), Important-to-Safety / Balance of Plant Trip
- Neutron Monitoring (NR), Safety-Related
- Plant Process Computer (CX), Important-to-Safety

## **INSPECTION RESULTS**

No findings were identified.

## **EXIT MEETINGS AND DEBRIEFS**

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

- On November 17, 2022, the inspectors presented the cyber security inspection results to Mr. J. Cunzeman, Engineering Director and other members of the licensee staff.

**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71130.10	Corrective Action Documents	04233553	EOC Review for Maintenance Per IR 4227370	03/27/2019
		04265133	TSC Computer Removed for CS Investigation	07/18/2019
		04288042	Cyber Security 24-Month SA Gap CC-AA-604-102-F-02 Not In WP	10/15/2019
		04302100	CYBER SECURITY: EP CDA PC Was Replaced with Non-CDA PC	06/12/2019
		04367087	Cyber Follow-Up from JAF Inspection	02/09/2020
		04383635	NOS ID: Cyber Incident IR Not Reclassified as Sig Level 3	11/11/2020
		04452030	1PL100J Tamper Seals	10/10/2021
		4325515	Cyber Security Tamper Seals Removed Improperly	03/10/2020
		4345187	Cyber - Missed Identification of CDAs	05/22/2020
		4511718	Cyber CDA Post Install Walk Down Discrepancy	07/19/2022
	4519948	Cyber Security-Security CDA Key Issued Without Using Key Log	08/31/2022	
	Corrective Action Documents Resulting from Inspection	4529068	Cyber - NRC Pre-Inspection Issue DRPs	10/12/2022
		4536919	OPEX EVALUATION: THREAT ANALYSIS OF CVE-2021-1422 Cisco ASA	11/14/2022
		4536920	OPEX EVALUATION: THREAT ANALYSIS OF CVE-2021-1402 CISCO FTD	11/14/2022
		4536947	NRC ID - Cyber - Error Identified on Baseline Data Sheet	11/14/2022
		4537052	OPEX EVALUATION: THREAT ANALYSIS CVE-2020-9034 Symmetricon	11/15/2022
		4537074	NRC ID Cyber Error Identified on Baseline Data Sheet	11/15/2022
		4537088	NRC ID - Cyber- Error Found on CDA Checklist WO 5286130-01	11/13/2022
		4537184	NRC ID - Cyber - Error Message on 2FW36J	11/15/2022
		4537185	NRC ID - Cyber - Error Message on 1FW37J	11/15/2022
4537192		NRC ID - Cyber - Vulnerability Assessment Missing CVE Info	11/15/2022	
4537479	NRC ID - Cyber – CDA Subcomponent ID Tag Needs Removed	11/16/2022		
4537483	NRC ID - Cyber - Observation Vulnerability Assessment Enhancement	11/17/2022		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		4537619	NRC ID - Cyber - Unused Services Found Set to Manual on IVMS	11/17/2022
		4537621	NRC ID -Cyber-Unused Services Found Set to Manual on Kiosks	11/17/2022
		4537725	NRC ID - Cyber - Observation CDA Key Control	11/17/2022
	Engineering Changes	EC0000631318	Cyber Defensive Infrastructure (CDI) Refresh	2
	Miscellaneous	AR 7654321	Cyber Security Incident Response Drill Scenario	03/16/2022
		CC-AA-601-F-02	BYR_0CP-CX7006_CP - CDA Baseline Data Sheet	4
		CC-AA-601-F-02	BYR_1CP-CX1500_CP - CDA Baseline Data Sheet	4
		CC-AA-601-F-02	BYR_2NCU-CX1041_NCU - CDA Baseline Data Sheet	1
		CC-AA-606-1002-F-01	Data Diode Server Disaster Recovery Plan	1
	Procedures	BYR-CDI-L3-MAT	Defensive Architecture Enhancement - BYR-CDI L3 Mat	1
		CC-AA-601-1001	Cyber Security Program Health Performance Indicators and Criteria	3
		CC-AA-601-1003-F-01	Supplier Exception Evaluation For SQAD-7	1
		CC-AA-604-101	CDA Password Configuration and Control	0
		CC-AA-606	Cyber Security Incident Response	3
		IT-AA-213-1000	Scanning for Rogue Wireless Access Point Points	6
		OP-AA-108-103-1000	CDA Key Control Program	3
		SM-AA-102	Warehouse Operations	32
		SM-AA-406	Supply Cyber Security	7
	TQ-AA-176-J020	Cyber Security Specialized Training Matrix	2	
	Work Orders	05070909	Cyber Defense Infrastructure (CDI) Refresh EC 631318	04/21/2022
		05276124-01	Monthly DAE Intrusion Detection Functional Testing	07/13/2022
		05287939-01	Perform Monthly Rogue Wireless Scanning	09/01/2022