



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

April 4, 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 – SECURITY BASELINE INSPECTION
REPORT 05000454/2022401 AND 05000455/2022401

Dear Mr. Rhoades:

On March 21, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Byron Station and discussed the results of this inspection with Mr. Curt Catencamp, Security 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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

A handwritten signature in black ink, appearing to read "S. Orth".

Signed by Orth, Steven
on 04/04/22

Steven K. Orth, Chief
Plant Support Branch
Division of 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 Steven K. Orth dated April 4, 2022.

SUBJECT: BYRON STATION – SECURITY BASELINE INSPECTION
REPORT 05000454/2022401 AND 05000455/2022401

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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: 05000454/2022401 and 05000455/2022401

Enterprise Identifier: I-2022-401-0025

Licensee: Constellation Energy Generation, LLC

Facility: Byron Station

Location: Byron, IL

Inspection Dates: February 01, 2022 to March 21, 2022

Inspectors: A. Anderson, Physical Security Inspector
J. Rey, Security Specialist

Approved By: Steven K. Orth, Chief
Plant Support Branch
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a security baseline 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.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IPs.

SAFEGUARDS

71130.02 - Access Control

The inspectors evaluated the access control program through completion of the following inspection elements:

Access Control (1 Sample)

- (1)
 - Tier I: All Requirements
 - Tier II: 02.06a-d; 02.07a; 02.08a, b, e
 - Tier III: 02.09

71130.04 - Equipment Performance, Testing, and Maintenance

The inspectors evaluated the security equipment testing and maintenance program. The following elements were evaluated from this IP.

Equipment Performance, Testing, and Maintenance (1 Sample)

- (1)
 - Tier I: All
 - Tier II: 02.09a; 02.10a; 02.11d; 02.13a
 - Tier III: 02.14; 02.15b

71130.09 - Security Plan Changes

The inspectors evaluated the security plan changes through completion of the following procedure elements:

Security Plan Changes (1 Sample)

- (1) Since the last NRC inspection of this program area, Security Plan Revisions 17 to 18 were implemented based on your determination, in accordance with Title 10 of the *Code of Federal Regulations* (CFR) 50.54(p)(2), that the changes resulted in no decrease in safeguards effectiveness of the security plan, and that the revised security plan changed continues to meet the requirements of 10 CFR 73.55(b). The inspectors conducted a review of the security plan changes to evaluate for potential decrease in safeguards effectiveness of the security plan. However, this review does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

PP01: Protected Area Security Equipment Performance Index Sample (IP Section 02.17) (1 Sample)

- (1) February 01, 2021 through January 31, 2022

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On March 21, 2022, the inspectors presented the security baseline inspection results to Mr. Curt Catencamp, Security Manager and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71130.02	Miscellaneous		Visitor and Vehicle Escort Logs	2/20/2020 - 12/31/21
			Access Control Devices (Keys and Cores) Annual Inventory	08/11/2021
		IR 4356921	Access Control Devices Key and Core Change Out	07/15/2020
	Procedures	SY-AA-101-106	Control and Classification of Safeguards Information and Sensitive Unclassified Non-Safeguards Information	022
		SY-AA-101-112	Exelon Security Search Processes	037
		SY-AA-101-112-1002	Unitech Laundry Facility Search Processes	3
		SY-AA-101-112-1003	Ion Scanning Explosives Detector (ISED) Search Processes	4
		SY-AA-101-112-1004	Protected Area Search Processes	4
		SY-AA-101-112-1005	Owner Controlled Area Inspection Processes	2
		SY-AA-101-115	Controlling Gates and Power Operated Active Vehicle Barriers	15
		SY-AA-101-116	Conducting Patrols (SUNSI)	17
		SY-AA-101-117	Processing and Escorting of Personnel and Vehicles	33
		SY-AA-101-117-F-03	Visitor/Vehicle Registration Log	3
		SY-AA-101-120	Control of Security Access Control Devices	9
		SY-AA-101-120-F-01	Key Issuance Log	2
		SY-AA-101-120-F-02	Key Inventory Log	1
		SY-AA-101-130	Security Responsibilities for Station Personnel	27
		SY-AA-103-500	Access Authorization Program	17
		SY-AA-103-514	Site Authorization for Unescorted Access	21
		SY-BY-101-112-1001	Owner Controlled Area (OCA) Receiving Building Search Activities	4
		SY-BY-101-115	Operation of Active Vehicle Barriers and Gates	8
SY-BY-101-115-	Controlling Gates and Power Operated Active Vehicle Barriers	2		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		1003		
		SY-BY-101-116-1001	Owner Controlled Area Patrol	10
		SY-BY-101-116-1002	Protected Area and Vital Area Patrols	6
		SY-BY-101-116-1003	Owner Controlled Area Observation Station	1
		SY-BY-101-119	Warehouse Process of Packages and Cargo	1
		SY-BY-101-120-1002	Containment Entry	9
	Self-Assessments	AR 4308339	Nuclear Oversight Report NOSA-BYR-20-02	01/21/2020 - 02/14/2020
		AR 4394288	Nuclear Oversight Report NOSA-BYR-21-01	01/19/2021 - 02/05/2021
71130.04	Corrective Action Documents	AR 02478772	Security - Removing Weapons From Service - Designated as Auxiliary Weapons	03/31/2015
	Miscellaneous	NSMART	History of Logged Messages - LLEA Phone and Radio Check at 1739	03/04/2022
		NSMART Logs	Zone Alarm History Filter By Zone and/or Zone Group Samples	02/10/2022 - 03/09/2022
		Security Aid #057	Security Door/Card Reader Test Reference	03/16/2022
	Procedures	SY-A-101-122-104-F-02	Firearms Detector Operational Test Worksheet AN5/AM5 Test Piece	0
		SY-AA-101-103-F-01	Vehicle Barrier System Inspection Program Checklist	2
		SY-AA-101-122	Testing Security Equipment	23
		SY-AA-101-122-101	Performance of Perimeter Intrusion Detection/Camera System Tests	0
		SY-AA-101-122-102	Performance of Early Warning Detection System Tests	0
		SY-AA-101-122-103	Performance of Access Control Device and Portal Tests	0
SY-AA-101-122-104		Performance of Special Purpose Detector, Communication, Lighting, and Biometrics Threshold Tests	0	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SY-AA-101-122-104-F-04	Biometrics Threshold Verification Method	0
		SY-AA-150-103	Firearms Maintenance, Testing and Accountability	2
		SY-AA-500-127	Safety Security Interface	7
		SY-BY-101-122-1001	Byron Security Equipment Testing	24
		SY-BY-101-122-1001-F-01	Site Specific Testing	18
71130.09	Miscellaneous		Byron Nuclear Power Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan and Independent Spent Fuel Storage Installation Security	18
			Byron Nuclear Power Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan and Independent Spent Fuel Storage Installation Security	17
		SY-AA-101-104-F-03	Byron Nuclear Power Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan and Independent Spent Fuel Storage Installation Security Plan Change Form	4
71151	Miscellaneous		Performance Indicator Verification Data	02/01/2021 - 01/31/2022