



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

July 10, 2024

Daniel Kenny
ISFSI Manager
Constellation Nuclear
101 Shiloh Blvd.
Zion, IL 60099-2722

SUBJECT: ZION – INDEPENDENT SPENT FUEL STORAGE INSTALLATION SECURITY
INSPECTION REPORT 07201037/2024401

Dear Daniel Kenny:

On June 13, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Zion and discussed the results of this inspection with you 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 "Michael E. Ziolkowski".

Signed by Ziolkowski, Michael
on 07/10/24

Michael E. Ziolkowski, Chief
Security, Emergency Preparedness, and Incident
Response Branch
Division of Radiological Safety and Security

Docket No. 07201037

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to D. Kenny from M.Ziolkowski dated July 10, 2024.

SUBJECT: ZION – INDEPENDENT SPENT FUEL STORAGE INSTALLATION SECURITY
INSPECTION REPORT 07201037/2024401

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

Docket Number: 07201037

License Number: General License (ISFSI)

Report Number: 07201037/2024401

Enterprise Identifier: I-2024-401-0073

Licensee: Constellation Nuclear

Facility: Zion ISFSI

Location: Zion, IL

Inspection Dates: June 11, 2024 to June 13, 2024

Inspectors: G. Bonano, Physical Security Inspector
D. Garner, Security Specialist (Nuclear)

Approved By: Michael E. Ziolkowski, Chief
Security, Emergency Preparedness, and Incident Response Branch
Division of Radiological Safety and Security

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a security inspection of the Physical Protection Program for the Independent Spent Fuel Storage Installation (ISFSI), in accordance with the Spent Fuel Storage Oversight Process. The Spent Fuel Storage Oversight Process is the NRC's program for overseeing the safe storage of spent nuclear fuel. Refer to <https://www.nrc.gov/waste/spent-fuel-storage/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

Inspection was conducted using the appropriate portions of the Inspection Procedure (IP) 81311, "Physical Security Requirements for Independent Spent Fuel Storage Installations" 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

<https://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>.

The procedure was declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2690, "Inspection Program for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations and for Title 10 of the *Code of Federal Regulations*, Part 71 Transportation Packaging's."

The inspector 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.

ISFSI SECURITY

81311 - Physical Security Requirements for Independent Spent Fuel Storage Installations

The inspectors evaluated the ISFSI Security Program. The following elements were evaluated:

Physical Security Requirements for Independent Spent Fuel Storage Installations (1 Sample)

- (1) 02.01 (a - c); 02.02 (a - h); 02.03 (a - m); 02.04; 02.05 (a - t); 02.06; 02.07 (a, b); 02.08 (a-c)

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On June 13, 2024, the inspectors presented the independent spent fuel storage installation security inspection results to Daniel Kenny and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
81311	Miscellaneous		Zion Nuclear Power Station ISFSI Physical Security Plan	5
			LLEA Response Capability Agreement	06/03/2024
			Zion ISFSI Security Order Compliance Matrix	11/26/2013
			ISFSI Intrusion Alarm System Performance Tests	2022 - 2024
			Constellation Memo to Record; Subject: License Transfer, Access Authorization Records	11/16/2023
			Zion ISFSI Security Program Review	06/13/2024
			Security Events Reports	03/2022 - 05/2024
			Zion Independent Spent Fuel Storage Installation Training Security Lesson Plan, (Patrol Officer)	0
			Independent Spent Fuel Storage Installation Training Agenda 2024, (Proposed 2024 Initial and Continuing Training Program Curriculum)	0
			Security Key & Core Distribution and Inventory	2022 - 2024
		Audit #: A-22-001	Zion Station Site Audit, Quality Audit Report	05/25/2022
		E0-4	Emergency Preparedness Implementation	0
		EA-11-268 (NS108461)	Additional Security Measures (ASMs) and Fingerprinting for Unescorted Access for the ZION NPS ISFSI	0
		NS113046	Safety Evaluation Report by NSIR Related to Zion Nuclear Power Station Physical Security Plan, Revision X and Zion Nuclear Power Station Independent Spent Fuel Storage Installation Physical Security Plan Review and Exemption Request,	0
TPE-001–TPE-017	Zion Independent Spent Fuel Storage Installation Training Security Task Performance Evaluations – On the Job Training	04/16/2015		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
81311	Miscellaneous	ZS-2012-0013	Zion ISFSI Security Compliance Matrix	0
	Procedures	SP-1	Conduct of Security Operations	5
		SP-10	Security Force Patrols (SUNSI)	4
		SP-11	ISFSI Testing and Maintenance of Security Equipment (SUNSI)	10
		SP-1	Conduct of Security Operations	5
		SP-10	Security Force Patrols (SUNSI)	4
		SP-11	ISFSI Testing and Maintenance of Security Equipment (SUNSI)	10
		SP-12	Lock and Key Control	2
		SP-13	Request for ISFSI Unescorted Access	3
		SP-14	ISFSI Badging	3
		SP-15	ISFSI Weapons Qualification	6
		SP-15	Independent Spent Fuel Storage Installation Weapons Qualifications	6
		SP-16	ISFSI Weapons Control, Training and Maintenance Program	9
		SP-16	Independent Spent Fuel Storage Installation Weapons Control, Training, and Maintenance Program	9
		SP-17	Integrated Response Plan with Law Enforcement Agencies (SUNSI)	1
		SP-2	Access Authorization Program	8
		SP-4	CAS Responsibilities Zion Solutions Project	3
		SP-5	Application of Safeguards Compensatory Measures	2
		SP-6	Contingencies Zion Independent Spent Fuel Storage Installation	3
		SP-8	ISFSI Personnel Access Control	11
SP-9	ISFSI Vehicle Control	2		