



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

August 25, 2021

Mr. Paul Hansen
Decommissioning Director
NextEra Energy Duane Arnold, LLC
3277 DAEC Road
Palo, IA 52324-9785

**SUBJECT: DAEC DECOMMISSIONING REACTOR (PERMANENTLY SHUTDOWN) AND
INDEPENDENT SPENT FUEL STORAGE INSTALLATION – SECURITY
INSPECTION REPORTS 05000331/2021401; AND 07200032/2021401**

Dear Mr. Hansen:

On August 5, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at DAEC Decommissioning Reactor and discussed the results of this inspection with Mr. J. Schwertfeger, 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 08/25/21

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

Docket Nos. 05000331, 07200032
License Nos. DPR-49, General License (ISFSI)

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Paul Hansen from Steven K. Orth dated August 25, 2021.

SUBJECT: DAEC DECOMMISSIONING REACTOR (PERMANENTLY SHUTDOWN) AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION – SECURITY INSPECTION REPORTS 05000331/2021401; AND 07200032/2021401

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

Docket Numbers: 05000331, 07200032

License Numbers: DPR-49, General License (ISFSI)

Report Numbers: 05000331/2021401, 07200032/2021401

Enterprise Identifier: I-2021-401-0146, I-2021-401-0139

Licensee: NextEra Energy Duane Arnold, LLC

Facility: DAEC Decommissioning Reactor and ISFSI

Location: Palo, IA

Inspection Dates: June 02, 2021 to August 05, 2021

Inspectors: G. Bonano, Physical Security Inspector

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 decommissioning security inspection and an inspection of the physical protection program for the Independent Spent Fuel Storage Installation at the Duane Arnold Energy Center (DAEC) Nuclear Power Plant. The inspections were conducted in accordance with the Decommissioning Reactor Oversight Process and the Spent Fuel Storage Oversight Process.

The Decommissioning Reactor Oversight Process is the NRC's program for overseeing the safe decommissioning of commercial nuclear power reactors. Refer to <https://www.nrc.gov/waste/decommissioning.html> for more information.

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

Unless otherwise noted, decommissioning security inspections were conducted in accordance with the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2202, "Security Inspection Program for Decommissioning Nuclear Power Reactors" and 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." 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. Publicly available IPs are located at: <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>.

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 IP.

DECOMMISSIONING SECURITY REQUIREMENTS

81200.02 - Access Control for Decommissioning Nuclear Power Reactors

The inspector evaluated the access control program through completion of a minimum of 50% of the inspection requirements. The following elements were evaluated from this IP:

Access Control for Decommissioning Nuclear Power Reactors (1 Sample)

- (1) 02.01 a - e; 02.02 a - f; 02.03 a - g; 02.04 a; 02.05

81200.05 - Protective Strategy Evaluation and Performance Evaluation Program for Decommissioning Nuclear Reactors

On January 31, 2020, the Secretary of the United States Department of Health and Human Services declared a Public Health Emergency (PHE) on the public health risks of the COVID-19 coronavirus. In response to the PHE, Duane Arnold Energy Center pursued an exemption to security officer training and requalification requirements (ML20139A006 for specific exemptions approved). In addition to these exemptions, licensees implemented additional actions or alternatives in response to health concerns. As described in existing regulatory guidance (e.g., Regulatory Guide 5.75), licensees implemented measures to ensure annual Force on Force exercises were conducted as safely as possible while maintaining the requirements to simulate as closely as practicable site specific conditions and minimizing the number and effects of artificialities associated with these exercises (Part 73, Appendix B, VI.C.3).

The inspector evaluated the protective strategy and performance evaluation program through completion of a minimum of 50% of the inspection requirements. The following elements were evaluated from this IP:

Protective Strategy Evaluation and Performance Evaluation Program for Decommissioning Nuclear Reactors (2 Samples)

- (1) 02.01 a - i, k – n; 02.02 a - h, k – v; 02.03; 02.04 a - h, k; 02.05
- (2) Observed annual Force-on-Force conducted on 06/27/2021. The inspector also observed a June 2, 2021, Force-on Force that exercised the licensee's proposed changes to its Security Plan (Proposed revision D1), which was submitted to the NRC for approval.

81200.09 - Security Plan Changes for Decommissioning Power Reactors

Since the last NRC inspection of this program area, Security Plan Revision 17 to D0 was implemented based on the licensee's determination, in accordance with 10 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 continues to meet the requirements of 10 CFR 73.55(b). The inspector 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.

The inspector evaluated the security plan change(s) through completion of the following inspection requirements.

Security Plan Changes for Decommissioning Power Reactors (1 Sample)

- (1) 02.01 a - e

ISFSI SECURITY REQUIREMENTS

81311 - Physical Security Requirements for Independent Spent Fuel Storage Installations

The inspector evaluated the Physical Protection Program for the Independent Spent Fuel Storage Installation. The following elements were evaluated:

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

- (1) 02.01 a-f

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On August 5, 2021, the inspectors presented the decommissioning security inspection results to Mr. J. Schwertfeger, Security Manager and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
81200.02	Procedures	SD-08	CAS/SAS Operations (SGI)	53
		SD-09	Keycard/Security Access Badge Issuance (SGI)	24
		SD-19	Plant Access Building and Security Control Point Operations (SGI)	33
		SP-05	Vehicle Access and Control (SGI)	43
		SP-09	Locks, Keys (SGI)	47
		SY-AA-102-1020	Security Badge Control and Use	5
		SY-AA-102-1021	Conduct of Personnel Searches	14
		SY-AA-102-1022	Vehicle and Material Search Procedure	13
		SY-AA-102-1023	Visitor Access Control	11
	Self-Assessments	PDA 20-001	Annual NOS Audit Report - Security	03/13/2020
PDA 21-001		Annual NOS Audit Report - Security	03/19/2021	
81200.05	Miscellaneous		Safeguards Event Log Report	11/2020 - 08/2021
			LLEA Agreement Letter (SGI)	03/10/2020
		AR No.: 02395483	Rollup of 2021 LAR Limited Scope Exercises	06/09/2021
	Procedures	CP-04	Defensive Response Positions (SGI)	31
		CP-09	Delay Barriers (SGI)	7
		CP-14	Timelines (SGI)	10
		SD-21	Alarm Response (SGI)	17
		SY-AA-102-1008	Security Drills & Exercises	15
		SY-AA-102-1010	Adversary Force Training	4
		SY-AA-102-1011	Tampering	5
Miscellaneous	SY-AA-102-1026	Security Posts and Patrols	8	
	SY-AA-102-1030	Operation of Security Alarm Stations	4	
81200.09	Miscellaneous	PSP	NextEra Energy Duane Arnold Energy Center, LLC PSP, T&QP, SCP, and ISFSI Security Program (SGI)	D0