



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

August 29, 2024

Doug Pehrson, Site Vice President
Entergy Operations, Inc.
1448 S.R. 333
N-TSB-58
Russellville, AR 72802-0967

SUBJECT: ARKANSAS NUCLEAR ONE – CYBERSECURITY INSPECTION REPORT
05000313/2024404 AND 05000368/2024404

Dear Doug Pehrson:

On August 22, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Arkansas Nuclear One. On August 22, 2024, the NRC inspectors discussed the results of this inspection with Brian Patrick, Director, Regulatory & Performance Improvement 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 "Nicholas H. Taylor".

Signed by Taylor, Nicholas
on 08/29/24

Nicholas H. Taylor, Chief
Engineering Branch 2
Division of Operating Reactor Safety

Docket Nos. 05000313, 05000368
License Nos. DPR-51, NPF-6

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

ARKANSAS NUCLEAR ONE – CYBERSECURITY INSPECTION REPORT 05000313/2024404 AND 05000368/2024404 DATED AUGUST 29, 2024

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DOCUMENT NAME: ARKANSAS NUCLEAR ONE – CYBERSECURITY INSPECTION REPORT 05000313/2024404 AND 05000368/2024404

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

Docket Numbers: 05000313 and 05000368

License Numbers: DPR-51 and NPF-6

Report Numbers: 05000313/2024404 and 05000368/2024404

Enterprise Identifier: I-2024-404-0010

Licensee: Entergy Operations, Inc.

Facility: Arkansas Nuclear One

Location: Russellville, AR

Inspection Dates: August 19, 2024, to August 22, 2024

Inspectors: J. Drake, Senior Reactor Inspector
S. Graves, Senior Reactor Inspector

Approved By: Nicholas H. Taylor, 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 cybersecurity inspection at Arkansas Nuclear One, 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

Cybersecurity (1 Sample)

- (1) The team reviewed implementation of Arkansas Nuclear One's Cybersecurity Plan (CSP) and focused on evaluating changes to the program, critical systems, and critical digital assets (CDAs).

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" (Partial)
- 03.03, "Review of Configuration Management Change Control" (Partial)
- 03.04, "Review of Cyber Security Program" (Partial)
- 03.05, "Evaluation of Corrective Actions"

The inspection reviewed the following cybersecurity program change:

- EC-54065725 Sallyport Security and Cybersecurity Upgrades

The team reviewed boundary device configurations, procedures and processes, staff training, and incident response implementation procedures.

- C619-DD 4 (Canary CT20SD)
- C629-NIDS-0000626856 (M920 IPS-NS3200 /M920)
- SIEM (Level 2) SPLUNK

The team also reviewed the following CDAs and their coverage by the cybersecurity plan.

- C618-ADA (PA Active Directory Server)
- 2C324-IDS1 (Level 3 NIDS McAfee IPS-NS3200 Dell R610)

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 22, 2024, the inspectors presented the cyber security inspection results to Brian Patrick, Director, Regulatory & Performance Improvement and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
71130.10	Corrective Action Documents	CR-ANO-	C-2022-02184, C-2023-00106, C-2023-00386, C-2023-00390, C-2023-00425, C-2023-00427, C-2023-00429, C-2023-00432, C-2023-00433, C-2023-00434, C-2023-00435, C-2023-00436, C-2023-00437, C-2024-00580, C-2024-00581, C-2023-00109, C-2024-01401, C-2024-01402, C-2024-01403, C-2024-01404, C-2024-01407, C-2024-01415,		
		CR-HQN-	2022-01377, 2023-00042, 2023-00146, 2023-00161, 2023-00486, 2023-03651, 2024-00285, 2024-00893		
	Corrective Action Documents Resulting from Inspection	CR-ANO-	C-2024-01428, C-2024-01429, C-2024-01442, C-2024-01444		
		CR-HQN-	2024-00907, 2020-00908, 2024-00914, 2024-00915		
	Miscellaneous			EN-IT-103-08 Attachment 2 for L3 Kiosk (Unannounced drill)	1/11/2023
		ANO-CDA-1902-00009		NEI 13-10 Indirect CDA Assessment - Level 3 Remediation Rack CDAs	
		ANO-CDA-1905-00017		C619-DD PA Security Data Diode (SEC ANO1)	
		ANO-CDA-2007-00006		SIEM white paper and assessment combined document.	
		CDA-1701-00204		Technical Controls 08-09 Assessment	
		CDA-2211-00003		Plant Monitoring Computer System NEI 13-10 EP and Indirect Combined Assessment	
		CDA-2311-00001		Sally Port Security Equipment NEI 08-09 Direct Assessment	
		Checklist		OIT- Employee Off Boarding - Account Management	08/28/2023
		F-BIT-SQA		Software Quality Assurance (SQA) Training	0
		FCBT-BIT-SQA		Software Quality Assurance (SQA) Training	0
		FCBT-CSG-CSCNAN		Generic Cyber Security Awareness	2
		FCBT-ESPP-CYBRINV		Maintain Cyber Security Technical Controls	0
FCBT-ESPP-WLKDWN		Cyber Security Walkdowns	0		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		FCBT-GET-PDM	Control of Portable Digital Media	9
		FCBT-IT-CSAT	Security Assessment Team (CSAT) Activities	0
		FCBT-IT-NCIRT	Nuclear Cyber Incident Response Team	0
		FCBT-SEC-CSGI	Protection Of Unclassified Safeguards & Safeguards Information-Modified Handling	9
		FFAM-IT-CDA	Job Familiarization Guide for Perform CDA Assessor Activities	0
		FFAM-IT-LAPHARDN	Portable Digital Media Lap11op Hardening and Scanning	1
		FFAM-IT-MEDIASCAN	Portable Digital Media Kiosk Maintenance and Media Scanning	1
		FLP-ESP-CDA	Critical Digital Asset Assessor	2
		LO-ALO-2023-00040	Cyber Security Program Effectiveness Review	
		SIEM White Paper	White paper describing Entergy's site Cyber Security Monitoring System (CSMS)	
		Whitepaper	Vulnerability Management Recovery Plan - 2024 ANO Inspection	
		Whitepaper XR-06	Actions taken on Northpoint Receiving Warehouse X-Ray Machine	
		WT-WTANO-2023-00152	Level Specific Firmware Protected Devices	05/20/2023
	Procedures	0CAN021802	ANO Cyber Security Plan Arkansas Nuclear One – Units 1 and 2 Docket Nos. 50-313 and 50-368	2
		CSWI-1250	Change CDA Passwords Work Instructions	12/20/2018
		CSWI-1255	Review of Audit Log Records (Logical) Work Instructions	3
		CSWI-1270	Account Management Work Instructions	4
		CSWI-1280	Monthly Operational Review and Verification of the SIEM Infrastructure Work Instructions	10/8/2020
		EN-EP-202-01	ANO EITER (Equipment Important To Emergency Response) Matrix	2
EN-IT-103-01	Control of Portable Digital Media Connected to Critical Digital Assets	14		
EN-IT-103-02	Cyber Security Periodic Activities	8		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		EN-IT-103-06	Audit & Accountability	1
		EN-IT-103-12	Cyber Security Configuration and Change Management	4
		EN-IT-103-14	Vulnerability Management	2
		EN-IT-104	Software Quality Assurance Program	16
		EN-TQ-131	Nuclear Cyber Security Training & Qualifications	3
	Work Orders		54137012, 54126919, 54115753, 54067379	