



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200
ATLANTA, GEORGIA 30303-1200

May 20, 2021

Mr. Tom Ray
Site Vice President
Duke Energy Carolinas, LLC
McGuire Nuclear Station
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION – SECURITY BASELINE TARGET SET
INSPECTION REPORT 05000369/2021402 AND 05000370/2021402

Dear Mr. Ray:

On April 22, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed a security target set inspection at your McGuire Nuclear Station, Units 1 and 2, 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.

The inspection examined activities conducted under your license as they relate to security and compliance with the Commission's rules and regulations and with the conditions of your specific site license. The inspector reviewed selected procedures and records, observed activities, and interviewed site security and operations personnel.

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,

/RA/

Scott M. Shaeffer, Branch Chief
Engineering Branch 2
Division of Reactor Safety

Docket Nos. 05000369 and 05000370
License Nos. NPF-9 and NPF-17

Enclosure: As stated

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SUBJECT: MCGUIRE NUCLEAR STATION – SECURITY BASELINE TARGET SET
INSPECTION REPORT 05000369/2021402 AND 05000370/2021402- DATED
May 20, 2021

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers: 05000369 and 05000370

License Numbers: NPF-9 and NPF-17

Report Numbers: 05000369/2021402 and 05000370/2021402

Enterprise Identifier: I-2021-402-0047

Licensee: Duke Energy Carolinas, LLC

Facility: McGuire Nuclear Station, Units 1 and 2

Location: Huntersville, NC

Inspection Dates: April 20, 2021 to April 22, 2021

Inspector(s): William R. Monk, Senior Reactor Inspector

Approved By: Scott M. Shaeffer, Branch Chief
Engineering Branch 2
Division of Reactor Safety

Enclosure

(U) SUMMARY

(U) The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a security baseline target set inspection at McGuire Nuclear Station, Units 1 and 2, in accordance with the Reactor Oversight Process (ROP). 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.

(U) List of Findings and Violations

(U) No findings nor violations of more-than-minor (MTM) significance were identified during this inspection.

(U) Additional Tracking Items

(U) None.

(U) INSPECTION SCOPES

(U) Unless otherwise noted, baseline security target set 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 (IMC) 2201, "Security Inspection Program for Commercial Nuclear Power Reactors." 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 industry standards. Publicly available IPs are located at: <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>.

(U) SAFEGUARDS – SECURITY BASELINE

(U) 71130.14 - Review of Power Reactor Target Sets

(U) The inspector evaluated the licensee's Security Target Set Program. The following elements were evaluated:

(U) Review of Power Reactor Target Sets (1 Sample)

- (1) [List Inspection Requirements: 02.01, 02.02 (a-f), 02.03, 02.04 (a-b), 02.05]

Review of Events and Logs (Section 02.01)

The inspector reviewed any licensee event reports, safeguards log entries, and corrective action program (CAP) entries since the last Target Set inspection that concern the target set identification, development, and maintenance program.

Target Set Identification and Development Process Review (Section 02.02)

The inspector assessed the licensee's documentation and maintenance of the process used to develop and identify complete and accurate target sets as required by 10 CFR Part 73 by reviewing applicable portions of procedures and samples of records and conducting interviews with responsible personnel and plant employees.

Verification of Target Sets Changes (Section 02.03)

The inspector reviewed changes to the licensee's documented target sets since the last Target Set inspection. The inspector verified that any design modifications and procedure or configuration changes that have occurred were appropriately documented in the site's target sets.

Verification of Complete and Accurate Target Sets (Section 02.04)

The inspector interviewed licensee personnel and reviewed a sample of target sets for reactor operation and for modes other than operation. Additionally, the inspector reviewed assumptions used in the licensee's development of its target sets.

Physical Protection Program Review (Section 02.05)

The inspector verified that the licensee performed a review of target sets for accuracy, completeness, and applicability at least every 24 months and as otherwise required, documented the results and recommendations, and entered findings in the site's corrective action program (CAP).

(U) INSPECTION RESULTS

(U) No findings of more-than-minor significance were identified during this inspection.

(U) EXIT MEETINGS AND DEBRIEFS

(U) The inspectors verified no proprietary information nor safeguards information was retained nor documented in this report.

(U) On April 22, 2021, the inspector presented the security baseline Target Set inspection results to Tom Ray, Site Vice President, and other members of the licensee staff during the inspection Exit Meeting.

(U) THIRD PARTY REVIEWS

(U) The NRC inspector did not review any third-party reports nor documents during the inspection period.

(U) DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71130.14	Corrective Action Documents	NCR 02185884	AD-SY-ALL-0130 Annual Target Set Review	02/20/2018
		NCR 02243803	Performance Discrepancy Identified in Target Set Baseline Inspection	11/15/2018
		NCR 02252308	Convene TSEP to Evaluate NFPA 805	01/14/2019
		NCR 02256558	Convene TSEP to Validate and Approve Timelines	02/07/2019
		NCR 02311566	TR-SY-MNS-1303 Creation	01/20/2020
		NCR 02311568	TR-SY-MNS-1304 Creation	01/20/2020
		NCR 02313306	TR-SY-MNS-1302 TSEP Review	01/29/2020
		NCR 02313631	TSEP Meeting 1/30/2020 – New Target Set Elements Identified	01/30/2020
		NCR 02326469	TR-SY-MNS-1302 Formal Target Set Admin. Change	04/22/2020
		NCR 02326818	NOS Audit: Conflicting Statements in MNS Target Set Book	04/23/2020
	Corrective Action Documents Resulting from Inspection	AR 02379345	Enhancement Opportunities Noted During Target Set Baseline Inspection	04/21/2021
		DRR 02379466	TR-SY-MNS-1302 Document Enhancements	04/22/2021
		NCR 02379526	Performance Deficiency Noted During Target Set Baseline Inspection	04/22/2021
		PRR 02379331	AD-SY-ALL-0130 Procedural Enhancements	04/21/2021
		PRR 02379333	AD-SY-ALL-0120 Procedural Enhancements	04/21/2021
	Engineering Evaluations	NTM 02261156	MNS TS Components Review 2018-01	Rev. 0
		NTM 02261161	MNS TS Components Review 2018-02	Rev. 0
		NTM 02261167	MNS TS Components Review 2018-03	Rev. 0
		NTM 02261168	MNS TS Components Review 2018-04	Rev. 0
		NTM 02261169	MNS TS Components Review 2018-05	Rev. 0
		NTM 02261171	MNS TS Components Review 2018-06	Rev. 0
	Miscellaneous		Target Set Expert Panel (TSEP) Consult	07/18/2018
			Target Set Expert Panel (TSEP) Annual Review	10/25/2018
			Target Set Expert Panel (TSEP) Performance Deficiency Review	11/27/2018
			Target Set Expert Panel (TSEP) Annual Review	01/30/2020
			Target Set Expert Panel (TSEP) Annual Review	02/18/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		TR-SY-MNS-1302	MNS Formal Target Sets	Rev. 2
		TR-SY-MNS-1303	Technical Description and Specifications of Target Elements	Rev. 0
		TR-SY-MNS-1304	Technical Information Supporting Core Damage Timeline Determination	Rev. 0
	Procedures	AD-SY-ALL-0120	Safety / Security Interface	Rev. 1
		AD-SY-ALL-0130	DEVELOPMENT AND MAINTENANCE OF TARGET SETS	Rev. 2
		GL-SY-MNS-1302	MNS Target Set Identification and Development Process	Rev. 0