



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 09, 2026

Joseph Quinn, Vice President
Fleet Support
Tennessee Valley Authority
1101 Market Street, LP 4A-C
Chattanooga TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT - INTEGRATED INSPECTION REPORT
05000327/2026003, 05000328/2026003, AND 07200034/2026001

Dear Joseph Quinn:

On September 30, 2026, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Sequoyah Nuclear Plant. On October 1, 2026, the NRC inspectors discussed the results of this inspection with Kevin Michael, Site Vice President, 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 "RT", is positioned above the typed name of the signatory.

Signed by Ryan Taylor on 10/09/26

Ryan C. Taylor, Chief
Reactor Projects Branch E
RII Division of Reactor Projects

Docket No(s): 05000327, 05000328, and 07200034
License No(s): DPR-77 and DPR-79

Enclosure:
As stated

cc w/ encl: GovDelivery Subscriber

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers: 05000327, 05000328, and 07200034

License Numbers: DPR-77 and DPR-79

Report Numbers: 05000327/2026003, 05000328/2026003, and 07200034/2026001

Enterprise Identifier: I-2026-003-0036 and I-2026-001-0099

Licensee: Tennessee Valley Authority

Facility: Sequoyah Nuclear Plant

Location: Soddy-Daisy, TN

Inspection Dates: July 1 to September 30, 2026

Inspectors: Philipp Braaten, Senior Reactor Inspector
Kyle Lei, Emergency Preparedness Inspector
Peter Meier, Senior Resident Inspector
Anthony Ponko, Construction Project Inspector
Alex Price, Resident Inspector
Matt Rich, Emergency Preparedness Inspector
Bill Stuckart, Reactor Inspector
Jose Vasquez, Construction Project Inspector
Jacqwan Walker, Senior Emergency Preparedness Inspector

Approved By: Ryan C. Taylor, Chief
Reactor Projects Branch E
RII Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Sequoyah Nuclear Plant, 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.

PLANT STATUS

Unit 1 and unit 2 began the inspection period at approximately 100 percent rated thermal power and remained there through the end of the period.

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) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. 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.

REACTOR SAFETY

71111.04 - Equipment Alignment

Partial Walkdown (IP Section 03.01) (2 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) unit 2 "A" train motor driven auxiliary feedwater pump during maintenance on the "B" train motor driven auxiliary feedwater pump on August 4, 2026 (2-SO-3-2; work order [WO] 124133409)
- (2) unit 2 "B" train control rod drive motor generator set with the "A" train control rod drive motor generator set tripped on August 25, 2026 (0-SO-85-1; condition report [CR] 2106817)

71111.05 - Fire Protection

Fire Area Walkdown and Inspection (IP Section 03.01) (1 Sample)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) cable spreading room (FAC-017) on September 1, 2026

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management (IP Section 03.01) (5 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) unit 2 "B" train containment spray heat exchanger chemical cleaning and planned risk informed completion time on June 7, 2026 (WO 126125869)
- (2) "B" train main control room chiller failure during an "A" train work week (CR 2098767)
- (3) unit 1 reactor and turbine trips from July 1, 2024 to June 30, 2026, and risk impact to ensure adequate probabilistic risk assessment configuration control
- (4) unit 2 "A" train control rod drive motor generator set tripped on August 25, 2026 (CR 2106817)
- (5) unit 1 "C" phase main bank transformer degraded cooling identified on September 7, 2026 (CR 2109545, CR 2109776)

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (4 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) 125 volt DC vital battery IV failed resistance acceptance criteria during testing identified on July 20, 2026 (CR 2100428)
- (2) unit 2 "B" train charging pump planned maintenance impact to the technical specification action statement completion time during a unit 2 "B" residual heat removal pump maintenance outage on July 22, 2026 (CR 2100754)
- (3) essential raw cooling water leak from the unit 1 "B" train containment spray pump room cooler on July 23, 2026 (CR 2100904)
- (4) "B" train main control room chiller failed to load identified on September 15, 2026 (CR 2111382)

Temporary and Permanent Modifications (IP Section 03.02) (1 Sample)

- (1) installation of insert valves within the high pressure fire protection underground piping headers (WO 125070567, engineering change package SQN-24-073)

71111.24 - Testing and Maintenance of Equipment Important to Risk

The inspectors evaluated the following testing and maintenance activities to verify system operability and/or functionality:

Post-Maintenance and Surveillance Testing (IP Section 03.01) (9 Samples)

- (1) 125 VDC vital battery and charger II performance test on July 6, 2026 (WO 12612669)
- (2) unit 2 "B" train containment spray heat exchanger chemical cleaning on July 8, 2026 (WO 126125869)
- (3) emergency diesel generator 1A-A surveillance run on July 16, 2026 (WO 125558413)

- (4) "B" train main control room chiller repairs completed on July 28, 2026 (CR 2098767; 0-SI-SFT-311-001.B)
- (5) unit 1 ice condenser intermediate deck door weekly inspection on August 6, 2026 (WO 125738939)
- (6) unit 2 rod control testing on August 11, 2026 (0-SI-OPS-085-011.0)
- (7) emergency diesel generator 2B-B surveillance run on August 31, 2026 (WO 125675100)
- (8) emergency diesel generator 1A-A surveillance (24-hour) and load rejection testing on September 8 and September 9, 2026 (WO 125561672)
- (9) unit 1 "B" train reactor trip instrumentation functional test (solid state protection system) on September 22, 2026 (WO 125676253; 1-SI-IFT-099-90.8B)

Inservice Testing (IST) (IP Section 03.01) (1 Sample)

- (1) unit 1 "B" train motor driven auxiliary feedwater pump performance test on August 4, 2026 (WO 125561191)

Quality Control (IP Section 03.02) (1 Sample)

- (1) "B" train main control room chiller compressor replacement on September 23, 2026 (WO 126513706)

Diverse and Flexible Coping Strategies (FLEX) Testing (IP Section 03.04) (1 Sample)

- (1) "B" train 3 MW FLEX diesel run on September 2, 2026 (WO 125448091; 0-SO-360-3)

71114.01 - Exercise Evaluation

Inspection Review (IP Section 02.01-02.06) (1 Sample)

- (1) The inspectors observed the biennial hostile action event exercise and evaluated emergency plan performance during the week of September 14, 2026. The scenario began with a simulated pinhole leak on the normal letdown leg inside unit 1 containment. The leak was calculated to be above emergency action level (EAL) threshold, and the shift manager declared an Unusual Event. Twenty minutes later, adversaries began a simulated water and land based attack near the pumping station. The shift manager received a call from the security manager confirming the adversaries had breached the protected area. This met the EAL threshold, and a Site Area Emergency was declared. The emergency response organization was activated and responded from alternate offsite locations. As the scenario progressed, an explosion near a unit 1 steam generator atmospheric relief valve caused a steam release and a tube rupture to one of the steam generators. The resulting damage to the steam generator led to increased radiation levels that exceeded protective action thresholds inside containment. Conditions for a General Emergency were met, and the offsite response organizations demonstrated their ability to implement emergency actions.

71114.08 - Exercise Evaluation - Scenario Review

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors completed an in-office review and evaluation of the licensee's proposed biennial emergency plan exercise scenario at least 30 days prior to the scheduled exercise. The inspectors discussed preliminary comments on the scenario with the licensee's emergency preparedness staff and with Federal Emergency Management Agency representatives. The inspectors' review does not constitute NRC approval of the scenario.

SAFEGUARDS

71130.15 - Security Operations

Security Equipment Condition (IP Section 03.02) (2 Samples)

The inspectors evaluated the ability of security equipment to perform its intended function through a walkdown of the following:

- (1) security back-up power supply on July 16, 2026 (CRs 2097940, 2097979)
- (2) security compensatory measures in effect in the central and secondary alarm stations on August 11, 2026

OTHER ACTIVITIES - BASELINE

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 03.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) degraded radiation monitors to ensure adherence to technical specifications and equipment important to emergency response requirements

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (IP Section 03.02) (2 Samples)

The inspectors reviewed the licensee's corrective action program to identify potential trends in the following, that might be indicative of a more significant safety issue:

- (1) safety-related and technical specification required room chiller and cooler failures from January 1, 2024 through August 31, 2026
- (2) unit 1 "B" train containment spray pump motor controller relay (30RX) failure identified on August 6, 2026 (CRs 2103709, 2104004, 2104033)

OTHER ACTIVITIES - TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60859 - Independent Spent Fuel Storage Installation (ISFSI) License Renewal Inspection

Inspections were conducted using the appropriate portions of the 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>. Inspections are declared completed when the IP requirements most appropriate to the inspection activity were met consistent with IMC 2690, "Inspection Program for Storage of Spent Reactor Fuel and Reactor-Related Greater-than-Class C Waste at Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packagings." 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.

The inspectors verified the site's ISFSI renewal program effectively implements aging management programs (AMPs) and activities relating to the renewal of an ISFSI. Inspectors assessed the licensee's programs that ensure dry cask storage systems and related structures, systems, and components (SSCs) will safely perform their intended functions during the period of extended operations.

Independent Spent Fuel Storage Installation (ISFSI) License Renewal Inspection (1 Sample)

- (1) The 20-year original HI-STORM 100 system Certificate of Compliance (CoC) No 72-1014 license period ended May 31, 2020. On August 2, 2023, Holtec International received a 40-year license renewal for the HI-STORM 100 CoC from the NRC with a new expiration date of May 31, 2060.

The inspectors reviewed applicable portions of the licensing and design bases including: (1) the final safety analysis report; (2) the technical specifications; and (3) CoC 1014-1, 1014-2, and 1014-5. The inspectors verified that the ISFSI license renewal program including AMPs, time limited aging analyses (TLAAs), and regulatory commitments were implemented for SSCs by reviewing the following documents and activities between August 17-21, 2026:

- NPG-SPP-07.9.5, "Dry Cask Storage Aging Management Program for HI-STORM 100 Systems," Revision 0002, which provides programmatic governance and implementation of the Tennessee Valley Authority (TVA) ISFSI AMPs
- preventive maintenance (PM) # 063605734 work instruction and associated work order #124223776 implementing AMPs for the leading cask multi-purpose canister (MPC) and HI-STORM 100 overpack
- visual inspection records of MPC SN-0005 and HI-STORM 100 overpack SN-0077 exterior and interior surfaces, documenting these activities were performed in accordance with 0-VI-DCS-079-005.0FW, "Holtec Vendor Instruction for MPC and HI-STORM Aging Management Examination," Revision 0017
- CR 2071712, "SQN Independent Spent Fuel Storage (ISFSI) Aging Management Program (AMP) Effectiveness," Revision 0, to determine if TVA was self-evaluating the effectiveness of the implementation of ISFSI AMPs at the plant

- procedures establishing measures to implement any required assessments at the appropriate frequency for those license renewal items that are to be monitored through the toll-gate process such as the high burnup fuel AMP
- PFE-4479, Revision 0, documenting selection of MPC and associated overpack for visual inspection

INSPECTION RESULTS

No Findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On October 5, 2026, the inspectors presented the emergency preparedness exercise follow-up inspection results to Keith Stephens, Director Plant Operations, and other members of the licensee staff.
- On October 1, 2026, the inspectors presented the integrated inspection results to Kevin Michael, Site Vice President, and other members of the licensee staff.
- On September 17, 2026, the inspectors presented the emergency preparedness exercise inspection results to Paul Gain, Emergency Preparedness Manager, and other members of the licensee staff.
- On August 24, 2026, the inspectors presented the ISFSI license renewal inspection results to Brian Cupp, Dry Cask Storage Manager- TVA Nuclear Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
60859	Engineering Evaluations	PFE-4479	PAR of SQN Dry Cask Aging Management Cask Selection	0
		PM #063605734 Evaluation	DCS/PM/0-SCVL-79-100/HI-STORM 100 and MPC-32 Aging Management Examination	0
		SQN 10 CFR 72.212	SQN 10 CFR 72.212 Evaluation Report for the HI-STORM 100 Cask System	10
	Procedures	0-VI-DCS-079-006.0FW	Holtec Vendor Instruction for MPC and HI-STORM Aging Management Examination	0017
		Integrity Assessment Group QCP 101	Qualification and Certification of NDT Personnel	59
		NPG-SPP-07.9.5	Dry Cask Storage Aging Management Program for HI-STORM 100 Systems	0002
	Self-Assessments	CR Number 2071712	SQN Independent Spent Fuel Storage (ISFSI) Aging Management Program (AMP) Effectiveness	0
71114.01	Procedures	EPDP-3	Emergency Plan Exercises and Preparedness Drills	27
		REP Generic	Radiological Emergency Plan	117
71114.08	Procedures		2025 SQN JULY EMPE	08/07/2025
		REP Appendix B	Sequoyah Nuclear Plant Radiological Emergency Plan	111
71152A	Procedures	NPG-SPP-18.3.5	Equipment Important to Emergency Response	Revision 0019
	Work Orders	120667412	0-RE-90-101, auxiliary building vent rad monitor, non-functional recorder	
		120667434	1-RE-90-120, steam generator blowdown effluent monitor, degraded recorder	
		120667444	2-RE-90-106, containment rad monitor, recorder degraded	
		120667458	2-RE-90-0120, steam generator blowdown rad monitor, recorder non-functional	

		120667473	1-RE-90-280, post accident sampling line rad monitor, recorder non-functional	
		121286681	High rad alarm associated with 0-RE-90-141, ERCW header "B" effluent monitor	
		124950560	2-RE-90-256, condenser vacuum exhaust rad monitor, degraded	
		125399567	2-RE-90-424, main steam line rad monitor, degraded	
		126139135	2-RE-90-120, steam generator blowdown rad monitor, non-functional flow switch	

Joseph Quinn

SUBJECT: SEQUOYAH NUCLEAR PLANT INTEGRATED INSPECTION REPORT 05000327-2026003_05000328-2026003 AND
07200034-2026001 DATED: October 09, 2026

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