



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

September 18, 2024

Thomas Marshall, Site Vice President
Tennessee Valley Authority
Sequoyah Nuclear Plant
P.O. Box 2000
Soddy Daisy, TN 37384

SUBJECT: ISSUANCE OF EXEMPTION RELATED TO NON-DESTRUCTIVE
EXAMINATION COMPLIANCE REGARDING SEQUOYAH NUCLEAR PLANT
INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Dear Mr. Marshall:

By letter dated August 4, 2022 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML22216A078), as supplemented by letters dated December 19, 2022 (ML22353A066), April 27, 2023 (ML23117A116), and January 3, 2024 (ML24004A039), Tennessee Valley Authority (TVA or the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC) an exemption request for the Sequoyah Nuclear Plant (SQN) Independent Spent Fuel Storage Installation (ISFSI), in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 72.7, "Specific exemptions," from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), 72.214, 72.154(b), and 72.174. Specifically, the exemption request, if granted, would permit SQN ISFSI to deviate from conditions of the NRC Certificate of Compliance (CoC) No. 1032, Amendment No. 3 (ML17214A039), appendix B, section 3.3, "Codes and Standards."

The requirements contained in 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), 72.214, 72.154(b), and 72.174 are applicable to CoC No. 1032, which was issued to Holtec International (Holtec or the CoC holder) [the manufacturer]. The condition of CoC No. 1032, Appendix B, technical specifications, section 3.3, "Codes and Standards," specifies American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, 2007 Edition, as the governing B&PV Code for Holtec's HI-STORM FW Multi-Purpose Canister (MPC) Storage System, the dry cask spent fuel storage system in use at SQN ISFSI. The ASME B&PV Code requires that 100 percent of the weld seam joining shell-to-shell of the MPC be inspected by radiography test (RT) where RT is a form of non-destructive examination.

The licensee loaded spent fuel in the HI-STORM FW dry cask storage system MPC Type 37 (MPC-37), Serial No. 234, for storage in the ISFSI at SQN under CoC No. 1032, Amendment No. 3, and its general license (ML22059B061). During a review of manufacturer's documents, the CoC holder identified that MPC-37 Serial No. 234 at SQN ISFSI has a longitudinal shell-to-shell weld for which no digital RT is available following a weld repair. When TVA was notified of this issue, MPC-37 Serial No. 234 was already put in use, and TVA registered it by letter dated February 24, 2022 (ML22059B061), entitled "Sequoyah Nuclear Plant - Registration of Spent Fuel Storage Cask Pursuant to 10 CFR 72.212(b)(2)."

The exemption request, if granted, would permit the licensee to continue to use loaded and sealed Holtec MPC-37 Serial No. 234 in its current condition to store spent fuel for the service life of the canister at SQN.

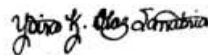
The NRC staff reviewed TVA's exemption request for the SQN ISFSI. A summary of the NRC staff's review is included in the enclosed safety evaluation report.

Based on the review, the NRC staff has determined that, pursuant to 10 CFR 72.7, the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the NRC grants the licensee an exemption from the requirements of 10 CFR 72.212(a)(2), 10 CFR 72.212(b)(3), 10 CFR 72.212(b)(5)(i), 10 CFR 72.212(b)(11), 10 CFR 72.214, 10 CFR 72.154(b), and 10 CFR 72.174 with regard to: (1) meeting the requirement to repeat volumetric examination as required for the original weld on an approximately 7.5-inch portion of the repaired weld in conformance with section III, subsection NB, of the ASME B&PV Code, 2007 Edition, and (2) maintaining and having available documentary evidence of the test for the service life of the canister. TVA is allowed to continue using MPC-37 Serial No. 234 to store spent fuel for the service life of the canister at SQN. All other relevant requirements shall be met.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records component of the NRC's ADAMS. ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. The PDR is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays

If you have any questions, please contact me at 301-415-8064, or Tilda Liu of my staff at 404-997-4730.

Sincerely,



Signed by Diaz-Sanabria, Yoira
on 09/18/24

Yoira Diaz-Sanabria, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket Nos. 50-327, 50-328, and 72-34
License Nos. DPR-77 and DPR-79
EPID No. L-2022-LLE-0027

Enclosure:
Safety Evaluation Report

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DOCUMENT DATE: September 18, 2024

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