



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

October 21, 2025

Site Vice President
Palisades Energy, LLC
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT–AUDIT SUMMARY REPORT IN SUPPORT OF
REVIEW OF LICENSE AMENDMENT REQUEST REGARDING STEAM
GENERATOR REPAIR BY SLEEVING (EPID L-2025-LLA-0036)

Dear Sir or Madam:

By letter dated February 11, 2025 (Agencywide Documents Access and Management System Accession No. ML25043A348), as supplemented by letters dated May 29, 2025 (ML25149A013), July 30, 2025 (ML25211A324), August 29, 2025 (ML25241A042), September 23, 2025 (ML25266A097), and October 7, 2025 (ML25280A083), respectively, Holtec Decommissioning International, LLC (HDI), on behalf of Holtec Palisades, LLC,¹, submitted a license amendment request (LAR) to the U.S. Nuclear Regulatory Commission (NRC) for the Palisades Nuclear Plant. Specifically, the LAR would revise the Technical Specifications to allow the use of Framatome Alloy 690 sleeves to repair defective steam generator tubes as an alternative to removing the tubes from service by plugging.

By letter dated March 20, 2025 (ML25070A153), the NRC staff stated that it would conduct a regulatory audit to support its review of the LAR in accordance with an audit plan. The audit was conducted using video and teleconferencing and a secure, online portal, as well as an NRC onsite audit on May 20 and 21, 2025 at Framatome’s facility in Lynchburg, VA.

The purpose of the audit was to gain understanding, to verify information, and to identify information that would require docketing to support the proposed licensing action. Based on the audit, Holtec provided the necessary information for the NRC staff to complete its review of the LAR. The NRC staff’s audit report is enclosed herewith.

¹ On July 24, 2025, the NRC issued an order approving and a conforming amendment reflecting the transfer of operating authority from HDI to Palisades Energy, LLC (Package, ML25167A245). Holtec Palisades, LLC, remains the licensed owner of PNP.

If you have any questions, please contact me at 301-415-2048, or by email to Justin.Poole@nrc.gov.

Sincerely,

/RA/

Justin Poole, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No.: 50-255

Enclosure:
Audit Report

cc: Listserv

REGULATORY AUDIT REPORT

PALISADES ENERGY, LLC

PALISADES NUCLEAR PLANT

DOCKET NO. 50-255

1.0 BACKGROUND

By letter dated February 11, 2025 (Agencywide Documents Access and Management System Accession No. ML25043A348), as supplemented by letters dated May 29, 2025 (ML25149A013), July 30, 2025 (ML25211A324), August 29, 2025 (ML25241A042), September 23, 2025 (ML25266A097), and October 7, 2025 (ML25280A083), Holtec Decommissioning International, LLC (HDI), on behalf of Holtec Palisades, LLC² (collectively, Holtec), submitted a license amendment request (LAR) to the U.S. Nuclear Regulatory Commission (NRC) for the Palisades Nuclear Plant. Specifically, the LAR would revise the Technical Specifications to allow the use of Framatome Alloy 690 sleeves to repair defective steam generator (SG) tubes as an alternative to removing the tubes from service by plugging.

By letter dated March 20, 2025 (ML25070A153), the NRC staff stated that it would conduct a regulatory audit to support its review of the LAR in accordance with an audit plan. The audit would be conducted remotely using video and teleconferencing and a secure, online portal, established by the licensee, as well as an onsite portion.

The purpose of the audit was to gain understanding, to verify information, and to identify information that will require docketing to support the NRC staff's review of the proposed licensing action.

The NRC staff conducted the regulatory audit in accordance with the Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-111, Revision 1, "Regulatory Audits" (ML19226A274).

2.0 SCOPE AND PURPOSE

The purpose of the audit was to help the NRC staff get a better understanding of the information provided by Holtec and its vendor, Framatome. The NRC staff performed a virtual audit of technical references used in the LAR. In addition, the NRC staff performed an onsite audit on May 20 and 21, 2025 at Framatome's facility in Lynchburg, VA to review documents and discuss the staff's draft requests for information.

3.0 AUDIT TEAM

The following NRC staff members and contractors participated in the audit:

- Paul Klein – Senior Materials Engineer

² On July 24, 2025, the NRC issued an order approving and a conforming amendment reflecting the transfer of operating authority from HDI to Palisades Energy, LLC (Package, ML25167A245). Holtec Palisades, LLC, remains the licensed owner of PNP.

- Andy Johnson – Senior Materials Engineer
- Sasan Bakhtiari – Argonne National Laboratory
- Justin Poole – Licensing Project Manager
- Marlayna Doell–Licensing Project Manager

4.0 AUDIT REPORT

The purpose of this regulatory audit was to enhance the NRC staff's technical understanding of the LAR, interact with the licensee and vendor technical staff supporting the LAR, and identify any information that would need to be docketed to support completion of the staff's review.

The NRC staff conducted an onsite audit in accordance with the audit plan on May 20 and 21, 2025, at Framatome's facility in Lynchburg, VA. During both days, the discussions focused on multiple topics, including the sleeve design, mechanical and leakage testing performed to meet the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code; the test plan used for eddy current qualification of the sleeve/tube assembly; the eddy current examination procedures and data from sleeve inspections; the sleeve installation techniques; and the licensee's analysis of testing results. The NRC staff also witnessed sleeve installation into a steam generator tube mock-up.

Following the onsite visit, by email dated June 30, 2025 (ML25182A275), the NRC staff issued a request for additional information (RAI). The questions were directly related to the information that was discussed during the onsite portion of the audit. In addition, the RAI identified a list of documents that the NRC staff determined were needed to be docketed to support the completion of the staff's review. On July 31, 2025 (ML25211A324), Holtec submitted its response to the RAI and provided the requested documents on the docket. On August 29, 2025 (ML25241A042), September 23, 2025 (ML25266A097), and October 7, 2025 (ML25280A083), Holtec supplemented its response to the RAI.

5.0 DOCUMENTS REVIEWED

The following documents were reviewed during the audit:

- Plugging_Spec_08-9175539-001.pdf
- Spec_08-9384357-001.pdf
- Stress_Fatigue_32-9387171-000.pdf
- Sleeve_Qual_1994_43-10202P-00.pdf
- Stress_Analysis_32-1233471-00.pdf
- 32-9386352-000.pdf
- 1994_Qual_Test_Plan_51-1233793-00.pdf
- 51-9321652-000.pdf
- 32-1229541-00.pdf
- 32-9386119-000.pdf
- 1241690.pdf
- Residual stresses associated with the hydraulic expansion of steam generator tubing into tubesheets.pdf
- 1995_TSP_TTS_Requirements_32-1232725-03.pdf
- Fatigue_Load_1995_32-1229541-00.pdf
- 51_9389780-000.pdf
- 51_9391941-000 Part 1 of 4.pdf

- 51_9391941-000 Part 2 of 4.pdf
- 51_9391941-000 Part 3 of 4.pdf
- 51_9391941-000 Part 4 of 4.pdf
- Palisades+NPP_DC_51-9385821-000.pdf
- Palisades Sleeving NRC Audit Visit_May_20_21.pdf
- +Point detection performance in parent tube -Sleeve vs Standard.pdf
- White paper – 05H indications behind sleeve – Proprietary

6.0 CONCLUSION

The purpose of the audit was to gain understanding, verify information, and identify required information for docketing to support the NRC staff's review of the proposed licensing action. Following the NRC staff's review of documents and presentation of its observations from the audit, Holtec provided the necessary information for the NRC staff to complete its review of the LAR.

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MDoell, NRR

AJohnson, NRR

PKlein, NRR

ADAMS Accession No. ML25260A635

***via eConcurrence**

NRR-106

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/DNRL/NCSEG/BC
NAME	JPoole	SLent	SBloom
DATE	09/18/2025	9/18/2025	09/18/2025
OFFICE	OGC – NLO w/comments	NRR/DORL/LPL3/BC (A)	NRR/DORL/LPL3/PM
NAME	STurk	IBerrios	JPoole
DATE	09/26/2025	09/30/2025	10/21/2025

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