



PNP 2026-055

10 CFR 50.90

10 CFR 50.91

October 8, 2026

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Palisades Nuclear Plant
NRC Docket No. 50-255
Renewed Facility Operating License No. DPR-20

Subject: Response to Second Request for Additional Information Regarding Emergency License Amendment Request: One-Time-Use Amendment to Allow Alternative Fuel Handling Method for the Recovery of Fuel Assembly DD41

By letter dated September 30, 2026 (Reference 1), in accordance with Title 10 of the Code of Federal Regulations (10 CFR) 50.90, *Application for amendment of license, construction permit, or early site permit* and 10 CFR 50.91, *Notice for public comment; State consultation*, Palisades Energy, LLC (Palisades Energy) requested U.S. Nuclear Regulatory Commission (NRC) approval of a one-time emergency change to the Renewed Facility Operating License (RFOL) for Palisades Nuclear Plant (PNP). The proposed License Amendment Request (LAR) would revise UFSAR Sections 9.11 *Fuel Handling and Storage Systems*, and 14.19 *Fuel Handling Accident*, to facilitate transport of fuel assembly DD41 from the reactor utilizing different plant equipment and following a different travel path than is described in the Updated Final Safety Analysis Report (UFSAR).

On October 1, 2026, the NRC and Palisades Energy conducted a conference call in which the NRC staff verbally and visually requested information in the form of questions related to the proposed LAR. On October 2, 2026, a follow-up conference call was conducted between the NRC and Palisades Energy. The purpose of the call was to provide verbal responses to the questions raised and to identify responses required to be docketed. Palisades Energy provided the responses to the request for additional information (RAI) in a letter dated October 2, 2026 (Reference 2).

By electronic mail (email) received on October 7, 2026, the NRC provided a second RAI regarding the LAR.

The enclosure to this letter provides Palisades Energy's responses to the second RAI received by email on October 7, 2026.

This letter contains no new regulatory commitments and no revisions to existing regulatory commitments.

In accordance with 10 CFR 50.91(b), State consultation, Palisades Energy is notifying the State of Michigan of the revised RAI response by transmitting a copy of this letter, with Enclosure, to the designated State of Michigan official.

If you have any questions regarding this submittal, please contact Kyle Steffic, Regulatory Assurance Manager, at (269) 290-8915.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 8, 2026.

Respectfully,

Michael Schultheis
Digitally signed by Michael Schultheis
DN: C=US, CN=Michael Schultheis,
O=Holtec - Palisades, OU=Site Vice
President, E=m.schultheis@holtec.com
Reason: I am approving this document
Date: 2026.10.08 12:37:33 -0400

Michael Schultheis
Site Vice President
Holtec Palisades

- References:
1. Holtec Palisades, LLC (Holtec Palisades) letter to U.S. Nuclear Regulatory Commission (NRC), *Emergency License Amendment Request: One-Time-Use Amendment to Allow Alternative Fuel Handling Method for the Recovery of Fuel Assembly DD41*, dated September 30, 2026 (ADAMS Accession No. ML26273A469)
 2. Holtec Palisades letter to U.S. Nuclear Regulatory Commission (NRC), Response to Request for Additional Information Regarding Emergency License Amendment Request: One-Time-Use Amendment to Allow Alternative Fuel Handling Method for the Recovery of Fuel Assembly DD41, dated October 2, 2026 (ADAMS Accession No. ML26275A214)

Enclosure: Response to Request for Information

cc: NRC Region III Regional Administrator
NRC Senior Resident Inspector - Palisades Nuclear Plant
NRC Project Manager - Palisades Nuclear Plant
Designated Michigan State Official

Enclosure

PNP 2026-055

Response to Request for Information

Response to Request for Information

Background:

By letter dated September 30, 2026 (Reference 1 of cover letter), in accordance with Title 10 of the Code of Federal Regulations (10 CFR) 50.90, *Application for amendment of license, construction permit, or early site permit* and 10 CFR 50.91, *Notice for public comment; State consultation*, Palisades Energy, LLC (Palisades Energy) requested U.S. Nuclear Regulatory Commission (NRC) approval of a one-time emergency change to the Renewed Facility Operating License (RFOL) for Palisades Nuclear Plant (PNP). The proposed License Amendment Request (LAR) would revise UFSAR Sections 9.11 *Fuel Handling and Storage Systems*, and 14.19 *Fuel Handling Accident*, to facilitate transport of fuel assembly DD41 from the reactor utilizing different plant equipment and following a different travel path than is described in the Updated Final Safety Analysis Report (UFSAR).

On October 1, 2026, the NRC and Palisades Energy conducted a conference call in which the NRC staff verbally and visually requested information in the form of questions related to the proposed LAR. On October 2, 2026, a follow-up conference call was conducted between the NRC and Palisades Energy. The purpose of the call was to provide verbal responses to the questions raised and to identify responses required to be docketed. Palisades Energy provided the responses to the request for additional information (RAI) in a letter dated October 2, 2026 (Reference 2 of cover letter).

By electronic mail (email) received on October 7, 2026, the NRC provided a second RAI regarding the LAR. Each RAI is presented below in bold type and is followed by the Palisades Energy response.

RAI-1

Is there an analysis of a cask drop over the spent fuel pool? If so, does the cask drop over the spent fuel pool bound a drop of DD41 (in the FTC) onto the fuel. Please supplement the LAR to include a section discussing how a hypothetical drop of the Fuel Transfer Canister onto spent fuel in the spent fuel pool is bounded by existing analysis.

Response:

Yes, there is an existing analysis for the radiological consequences of a cask drop in the Spent Fuel Pool (SFP). That analysis is UFSAR Chapter 14.11 Reference 15, NAI-1149-026, Revision 0 "Palisades Design Basis Cask Drop Analysis AST Radiological Analysis". In section 3.1, the analysis assumes damage to all the fuel pins in 73 fuel assemblies with a source term representing activities for 73 fuel assemblies. Since the DD41 Fuel Transfer Canister (FTC) is not physically large enough to impact more than 73 fuel assemblies located in their SFP storage cells, the cask drop event evaluated in NAI-1149-026 bounds the drop of the DD41 FTC in the SFP. Note that an FTC drop does not need to be postulated for the FTC transfer evolution due to the fact the Spent Fuel Building Crane (L-3) will be used in a single-failure proof configuration while handling the FTC.

RAI-2

Section 9.11.4.3 (Item 6) of the FSAR indicates, “The Fuel Building Crane may be operated in a non-single failure proof manner following site-specific heavy load requirements. Non-single failure proof modes of operation typically involve trolley and bridge speed increases and multiple direction movement control, and are only used when single failure proof operation is not required. Section 14.11 describes postulated cask drop accidents.” Section 14.11.1 of FSAR indicates “In these situations, the crane no longer meets single failure proof requirements, and load drops are postulated.” Since fuel transfer canister will be travelling over spent fuel within the fuel building and load drop analysis has not been performed, confirm FB crane is operated in single failure proof manner. In event the crane is not handled in single failure proof manner, is an impact limiting pad required as indicated in Section 14.11.2.3.1 of FSAR?

Response:

L-3 is currently configured to be single-failure proof via implementation of Temporary Modification (TMOD) EC-93373 in December 2024. The TMOD was installed to support the last dry fuel loading campaign. The TMOD will remain installed until after DD41 is recovered in order to have L-3 configured as single-failure proof while handling DD41 and the Fuel Transfer Canister.

RAI-3

NRC staff understands that fuel assembly DD41 exhibits significant bowing. Based on the fuel transfer canister (FTC) drawings made available on the portal, it does not appear that the FTC design accommodates this degree of bowing. Once DD41 is placed in the FTC, will measurements be taken to confirm the actual extent of bowing? The staff's concern is that when the FTC lid is installed, any existing bowing will be essentially forced into a straighter configuration, which could result in additional damage to the assembly and/or fuel rods. Please describe what evaluations or controls have been implemented to ensure that no further damage will occur when DD41 is enclosed in the FTC. Additionally, are contingency actions established in the event that the assembly is adversely affected when the FTC lid is secured?

Response:

Once DD41 is placed on the FTC pedestals, the extent of plastic deformation and overall assembly alignment will be confirmed using cameras before lowering the canister lid.

Based on a review by our fuel vendor, the assembly is expected to straighten out without risk of fuel cladding failure inside the FTC. As the guide bars begin to straighten during lowering of the lid, some axial tension and compression will be experienced at grid-to-guide bar welds, which may ultimately result in the distortion of grid cells. As long as the fuel rods remain within the envelope defined by the inner surface of the FTC lid, there is no potential for fuel rod failure during lowering of the lid.

Contingency actions are captured by the site's ALARA plan. This plan includes water chemistry sampling and radiological measurements promptly after the lid is lowered and stop work criteria for adverse conditions identified.