

## **10 CFR 2.206 Petition**

### **Request for NRC Enforcement Action Regarding Omission of Tendon 388F from the 2025 Palisades Containment Tendon Surveillance Inspection**

#### **Licensee**

Holtec, Restart of Palisades Nuclear Power Plant. Docket Nos. 50-255

#### **Submitted by:**

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#### **I. Petitioner's Request**

Pursuant to 10 CFR 2.206, I respectfully petition the U.S. Nuclear Regulatory Commission (NRC) to initiate enforcement action regarding the omission of tendon 388F (38BF) from Holtec's **2025 Palisades 50-Year Containment Tendon Surveillance Inspection Summary Report** (ADAMS Accession No. ML25062A010, March 3, 2025).

Holtec has submitted this surveillance report under the requirements of proposed Technical Specifications (TS) 5.5.5 and TS 5.6.7, which cover the Containment Structural Integrity Surveillance Program and the associated Surveillance Report. However, Holtec has failed to meet these requirements by omitting tendon 388F from surveillance, despite its unique history and the NRC's prior advisement of its safety significance and importance it be included in future tendon surveillances.

Specifically, I request the NRC to:

1. Review and clarify whether tendon 388F was included in Holtec's 2025 containment tendon surveillance inspection.
2. Evaluate whether its omission, by Holtec is acceptable given its unique history, non-homologous statistical nature, and the NRC's prior advisement it be included in future surveillances.
3. Direct Holtec to include tendon 388F in the ongoing surveillance program during the current extended shutdown period at Palisades to ensure containment integrity. Doing so must be completed before NRC acceptance of the Tendon Inspection results and Palisades entry into mode 4.

## **II. Background and Technical Basis**

During the 1990–1991 Steam Generator Replacement Project (SGRP) at Palisades, a temporary containment opening impacted 130 tendons, including tendon 388F. As documented in a February 12, 1991 letter from Consumers Power to the NRC (ML18057A752), tendon 388F was damaged and replaced with a new tendon. The NRC explicitly recognized that new tendons are prone to early prestress relaxation and detensioning.

In an August 26, 1991 response to NRC Inspection Report 90025 (ML18057B250), Consumers Power acknowledged that including 388F in the next surveillance program would be “prudent,” but declined due to access challenges, time schedule and costs. The NRC’s Safety Evaluation Review (ML18057A939) reinforced the unique safety significance of tendon 388F.

## **III. Analysis of the 2025 Inspection Report**

The 2025 tendon surveillance summary (ML25062A010) does not explicitly reference or include tendon 388F, nor does it explain its unique history or provide a basis for its exclusion. The report indicates that Holtec performed surveillance on 17 tendons (expanded from the original 13) and

inspected many anchorages and grease caps. However, the documentation shows no mention of tendon 388F (or “38BF”), which was previously identified by the NRC as requiring targeted follow-up.

While the ASME Section XI, IWL requirements and 10 CFR 50.55a(b)(2)(viii) (E) allow for sampling-based tendon surveillance, they implicitly require that the sample be drawn from a population of tendons that are representative and sufficiently similar in their construction and operational characteristics. These standards also permit targeted inclusion of tendons with known deviations from original construction or unique repair histories. The following section explains in detail what this means.

#### **IV. Flawed Sampling Basis Without Considering Homogeneity**

Random sampling relies on a homogeneous population of units with similar histories and characteristics (Cochran, Sampling Techniques, 3rd ed., 1977). Tendon 388F is a non-homologous unit:

- It was replaced under unique circumstances post-construction.
- It represents a new tendon and new materials not subject to the same aging and stress history as the original population.

- The NRC previously identified new tendons exhibit early prestress relaxation, adding to the justification for targeted inspection.

Including tendon 388F in random sampling would violate the statistical basis of representativeness. Conversely, excluding it from any surveillance perpetuates an identified integrity risk.

## **V. Regulatory Framework: LCO 3.6.1, TS 5.5.5, and TS 5.6.7**

### **3.6 CONTAINMENT SYSTEMS**

#### **3.6.1 Containment**

- **LCO 3.6.1:** Containment shall be OPERABLE.
- **SR 3.6.1.2:** Verify containment structural integrity in accordance with the Containment Structural Integrity Surveillance Program.

This requirement directly links containment operability to the effectiveness of tendon surveillance.

#### **5.5.5 Containment Structural Integrity Surveillance Program**

This program provides controls for monitoring tendon degradation in prestressed concrete containments, including the effectiveness of its corrosion protection medium, to ensure containment structural integrity.

The program requires:

- Baseline measurements prior to initial operations.
- Inspection frequencies and acceptance criteria in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWE and IWL.
- If corrective re-tensioning of five percent or more of dome tendons is needed, a dome delamination inspection must be performed within 90 days, with the results reported under TS 5.6.7.

#### **5.6.7 Containment Structural Integrity Surveillance Report**

This specification requires submission to the NRC of reports covering prestressing, anchorage, and dome delamination tests within 90 days of test completion.

Holtec's 2025 report claims compliance with these TS provisions, but the omission of tendon 388F violates the integrity of the surveillance program and the completeness of the required report. Specifically:

- Tendon 388F's unique replacement history makes it a critical element of the population subject to surveillance under ASME IWL standards.
- Exclusion of this tendon undermines the validity of Holtec's report and raises compliance concerns with TS 5.5.5, TS 5.6.7, and SR 3.6.1.2.

Additionally, Holtec's letter (ML25062A010) explicitly links its submission of the tendon surveillance report to compliance with Technical Specifications, stating:

"The subject PNP 50-Year Containment Tendon Surveillance Inspection Summary Report is being submitted in accordance with PNP Administrative Controls TS 5.6.7, as proposed in the Reference 1 LAR, which requires submittal of a report within 90 days after completion of the containment tendon surveillance tests. The surveillance inspection and testing activities were completed on December 30, 2024. Submittal of the summary report in compliance with proposed TS 5.6.7 is consistent with the regulatory framework for reinstatement of the PNP POLB and the resumption of power operations at PNP."

This explicit linkage affirms that the report is being submitted not merely as a voluntary measure but as part of Holtec's compliance with regulatory requirements for Palisades' return to power operations.

## **VI. Petition Admissibility Under 10 CFR 2.206**

This petition meets the admissibility criteria of 10 CFR 2.206 because:

- It identifies a specific safety issue: the omission of tendon 388F, a uniquely replaced tendon with known early relaxation risks.
- It highlights a regulatory obligation: Holtec's report, ML25062A010, claims compliance with TS 5.5.5 and 5.6.7, linking surveillance integrity to licensing requirements.
- It presents a current and ongoing issue: surveillance was conducted under a framework transitioning from defueled status to operational licensing.
- It raises a public health and safety concern: failure to inspect tendon 388F risks undetected containment degradation, undermining containment integrity upon restart.

## **VII. Requested NRC Actions**

I respectfully request that the NRC:

1. Review and clarify whether tendon 388F was included in Holtec's 2025 surveillance inspection.
2. Determine whether its omission constitutes a deficiency under the evolving licensing basis.
3. Require Holtec to include tendon 388F in the surveillance program during the extended shutdown, ensuring compliance with Technical Specifications and public safety expectations.

### **VIII. Certification**

I certify that the information provided in this petition is true and complete to the best of my knowledge, as required by 10 CFR 2.304(d).

Respectfully submitted,

Alan Blind