

November 1, 2025

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD**

Before Administrative Judges:

Jeremy A. Mercer, Chair

Dr. Gary S. Arnold

Dr. Arielle J. Miller

Docket: 50-255-LA-5 | License No. DPR-20

In the Matter of:

Holtec Palisades, LLC / Palisades Energy, LLC

(Palisades Nuclear Plant – License Amendment Request to Revise NFPA-805 Transition License Conditions)

From: Joint Petitioners: Alan Blind, Jody Flynn, Tom Flynn, Bruce Davis, Karen Davis, Christian Moevs, Mary Hoffman, Chuck Hoffman, Diane Ebert, David Simonelli, Terese McCarthy Alsterda, William Connor, Telene Edington, and Sally Nosal.

Note: Each of the above Joint Petitioners has submitted a Declaration Sheet (included in the Consolidated Petition, ADAMS Accession No. ML25250A001) affirming their individual basis for standing under 10 C.F.R. § 2.309(d) and formally designating Alan Blind as their Joint Petitioner Representative under 10 C.F.R. § 2.316.

Prepared and Submitted by: Alan Blind, Joint Petitioner and Joint Petitioner Representative

Table of Contents, Motion For Leave to File Supplemental Petition

PETITIONERS’ MOTION FOR LEAVE TO FILE SUPPLEMENTAL PETITION AND FOR ALTERNATIVE PROCEDURAL RELIEF	3
Introduction-----	3
Procedural Authority -----	4
Plain Reading of 10 C.F.R. §§ 2.309(c)(2)(ii) and 2.323(a)(1) -----	5
Why Joint Petitioners Must Be Permitted to Respond-----	6
Procedural Pathways Supporting Relief -----	7
Requested Relief-----	7
Consultation Under 10 C.F.R. § 2.323(b)-----	8
Conclusion -----	9
Attachments -----	9
Certification Pursuant to the Board’s Initial Prehearing Order	10
CERTIFICATION UNDER 10 C.F.R. § 2.304(d)	10
CERTIFICATE OF SERVICE	11
Attachment 1: Proposed Order Granting Leave and Setting Deadlines	12
Attachment 2:	14
Joint Petitioners’ Supplemental Petition In Response to Holtec’s September 23, 2025 LAR Filing	14

PETITIONERS' MOTION FOR LEAVE TO FILE SUPPLEMENTAL PETITION AND FOR ALTERNATIVE PROCEDURAL RELIEF

INTRODUCTION

Joint Petitioners submit this consolidated filing to respond to materially new information introduced in Holtec Palisades, LLC's September 23, 2025 License Amendment Request ("September 23, 2025 LAR"). Consistent with the Board's August 5, 2025 Initial Prehearing Order directing Alan Blind, Joint Petitioners' representative, not to file multiple interim supplements but instead to make one comprehensive submission if significant new information becomes available, and as required for consolidated filings, this submission includes three components: (1) a Motion for Leave to File Supplemental Petition pursuant to 10 C.F.R. §§ 2.309(c) and 2.323(b); (2) a draft proposed order; and (3) the full Joint Petitioners' Supplemental Petition responding to Holtec's September 23, 2025 LAR.

This motion is submitted in accordance with § 2.309(c) solely as the procedural mechanism for post-deadline filings, in compliance with the Board's August 5 Order. However, the accompanying Supplemental Petition presents two alternative procedural pathways—under §§ 2.309(f) or 2.309(c)—each providing an independent legal basis for the Board to accept in a preferred order, and adjudicate the filing depending on its interpretation of the revised application's scope.

Joint Petitioners argue that Holtec's revised License Amendment Request (LAR) replaces and supersedes the June 24, 2025 enclosure, expands the number of NFPA-805 Table S-2 license-

condition items from two to five, and alters both the technical basis and regulatory justification for the requested relief. Joint Petitioners could not have anticipated these changes during the original contention period. This Motion therefore serves as the appropriate procedural vehicle to present the accompanying Supplemental Petition in response to Holtec's September 23, 2025 filing, for the Board's consideration.

Petitioners respectfully request that the Board accept Attachment 2, **Supplemental Petition to Intervene**, for adjudication against the current Holtec September 23, 2025 application under review and establish a schedule for the filing of Answers and Replies.

PROCEDURAL AUTHORITY

Timeliness and Shutdown Tolling, Joint Petitioner Uncertainty

Under § 2.309(c)(1)(iii), Petitioners must file within 30 days of new information becoming available. Holtec filed its revised License Amendment Request (LAR) on September 23, 2025, and it was posted to NRC ADAMS on October 1, 2025.

On that same date, the Secretary issued a government shutdown order providing that:

"All filing deadlines... are automatically extended by the number of days that the NRC is shut down."

As of this filing, the government shutdown remains in effect, and the date of reopening is not yet known. Accordingly, the 30-day filing deadline under § 2.309(c)(1)(iii) may be extended on a day-for-day basis, although Joint Petitioners are uncertain whether this specific submission is encompassed within the tolling order. While the tolling provision is intended to preserve timeliness, the proceeding is nonetheless approaching the expiration of the 30-day window for

new contentions. The Motion and Attachment 2 are therefore timely under both the Board's August 5, 2025 Initial Prehearing Order and the Commission's October 1, 2025 shutdown notice. Because the government shutdown began on the same day Holtec's revised License Amendment Request was made publicly available in ADAMS on October 1, 2025, the timing created an unusual circumstance not anticipated by the Secretary's tolling order. Given this uncertainty, Joint Petitioners are proceeding with this filing now, erring on the side of satisfying the 30-day requirement rather than risking procedural delay or ambiguity.

PLAIN READING OF 10 C.F.R. §§ 2.309(C)(2)(II) AND 2.323(A)(1)

Holtec's counsel has correctly noted that the plain text of **10 C.F.R. §§ 2.309(c)(2)(ii) and 2.323(a)(1)** provides that *"the general motion requirements of 10 C.F.R. § 2.323 do not apply to new or amended contentions filed after the Federal Register deadline."* Joint Petitioners understand this language to mean that the regulation itself does not require a separate motion or Board authorization before submitting new or amended contentions after the initial hearing window has closed.

However, Joint Petitioners interpret this provision within the procedural framework established by the Board's **Initial Prehearing Order of August 5, 2025 (ML25217A517)**, which states:

"Unless some other time is specified in the Commission's rules or by the Board (e.g., see below), motions are due not later than 10 calendar days after the occurrence or circumstances from which the motion arises.

And

Motions to file new/amended contention(s) after the September 16 deadline, and the accompanying new/amended contention(s), will be considered timely under 10 C.F.R. § 2.309(c)(1)(iii) if filed not later than 30 days after the date upon which the information that is the basis of the motion becomes available."

And

“Participants who desire to file a reply in support of any other submission must seek and obtain permission from the Board to file that reply.”

And

“The Board hereby directs that Blind not file additional interim Supplements but file any additional contentions or supplemental information in one filing on or shortly before the September 16, 2025, timely contention [deadline].”

In Joint Petitioners’ view, this directive establishes the Board’s procedural expectation that any new or amended contentions submitted after September 16 must be **accompanied by a motion to file and consolidated into a single submission**, and that such filings will be considered timely only if submitted within thirty (30) days of the availability of the underlying information. Accordingly, while the plain text of §§ 2.309(c)(2)(ii) and 2.323(a)(1) might not require a motion for such filings, Joint Petitioners are proceeding on the understanding that the Board’s August 5 Order effectively supersedes that self-executing interpretation by requiring a combined motion-and-contention format for all post-deadline submissions, such as this motion and attachments. **Out of an abundance of caution**, and to ensure full compliance with both the Commission’s regulations and the Board’s procedural directives, **Joint Petitioners are therefore proceeding through this motion to file their Supplemental Petition under § 2.309(c).**

WHY JOINT PETITIONERS MUST BE PERMITTED TO RESPOND

When an applicant meaningfully changes its licensing request after the hearing window has opened—and after the deadline for public petitions has closed—particularly by adding safety-significant elements, the public must be afforded an opportunity to respond. Holtec’s revised filing replaced, in its entirety, the enclosure that contained the description of the proposed changes and their supporting technical basis. By doing so, Holtec:

- withdrew and replaced the prior enclosure,
- introduced three new compliance-based modifications, and
- advanced a new factual basis for the requested delay.

It would be unreasonable and contrary to the NRC's principles of fairness and transparency to require Petitioners to litigate against an application that Holtec has effectively abandoned. The Board must adjudicate the application that is actually before it, not one that no longer exists.

PROCEDURAL PATHWAYS SUPPORTING RELIEF

The following are the admission pathways that Joint Petitioners intend to argue, listed in order of preference. Each provides an independent procedural basis for the Board to grant this motion and to admit the attached Supplemental Petition for adjudication. The full arguments for each pathway are set forth in Attachment 2 (Supplemental Petition).

- **10 C.F.R. § 2.309(f):** The revised License Amendment Request (LAR) constitutes the operative application within the existing open proceeding.
- **10 C.F.R. § 2.309(c):** Good cause exists for the filing based on the introduction of new, material information and a timely response, as extended under the Commission's shutdown tolling order.

REQUESTED RELIEF

Joint Petitioners respectfully request that the Board:

- Grant leave to file the Supplemental Petition included as Attachment 2, with preferred option 1 pathway;
- Accept Attachment 2 for adjudication as part of this proceeding; and

- Establish new deadlines for Answers and Reply based on the shutdown tolling period.

A proposed order implementing this relief is included as Attachment 1.

CONSULTATION UNDER 10 C.F.R. § 2.323(B)

- **Holtec Consultation Response, October 31, 2025:**

“Pursuant to 10 CFR 2.309(c)(2)(ii) and 2.323(a)(1), the general motion requirements of 10 CFR 2.323 do not apply to new or amended contentions filed after the Federal Register deadline. Applicant will review Joint Petitioners’ 2.309(c) filing once it is served and will file an answer in accordance with 10 CFR 2.309(i)(1) and the orders issued by the Board and Commission Secretary. Applicant does not intend to separately respond to Joint Petitioners’ request for a standalone order authorizing the filing of a 2.309(c) pleading.”

- **NRC Consolation Good Faith Effort, Government Shutdown:**

“Anita Ghosh October 30, 2025: Mr. Blind, The NRC is shutdown, litigation is suspended, and I will respond when the shutdown ends.”

- Good-faith efforts were made to obtain NRC counsel consultation in accordance with § 2.323(b). Multiple email attempts were directed to NRC OGC representatives following Holtec’s September 23, 2025 submittal. We did receive the above response on October 30, 2025.
1. However, the federal government shutdown, which began the same day as Holtec’s revised License Amendment Request was submitted, is now approaching the expiration of the 30-day window for new contentions under § 2.309(c)(1)(iii).

2. Joint Petitioners are aware of the Secretary's October 1, 2025 tolling order extending all filing deadlines during the shutdown, but that order did not anticipate a substantive LAR revision by Holtec being available to the public on the very first day of the shutdown. This left Joint Petitioners without the ability to complete the required consultation with NRC counsel before the 30-day window expired.
3. As a result, Joint Petitioners are erring on the side of satisfying the 30-day filing requirement, notwithstanding the lack of a confirmed NRC consultation response, or even the need for a motion, rather than risk being deemed untimely despite multiple documented attempts to secure that consultation.

CONCLUSION

Petitioners have complied with every procedural directive issued to date. The requested relief ensures transparency, fairness, and efficient adjudication of the September 23, 2025 LAR.

ATTACHMENTS

This filing includes the following attachments, submitted as part of a single consolidated document:

- Attachment 1: Proposed Order Granting Leave and Setting Deadlines
- Attachment 2: Supplemental Petition

CERTIFICATION PURSUANT TO THE BOARD'S INITIAL PREHEARING ORDER

Pursuant to Section II of the Board's *Initial Prehearing Order* dated August 5, 2025, I hereby certify that I have read that Order in its entirety and that this filing complies with its requirements, including the provisions governing consultation, format, and procedural conduct.

CERTIFICATION UNDER 10 C.F.R. § 2.304(D)

I certify under penalty of perjury that the statements made in this filing are true and correct to the best of my knowledge and belief, that this Supplemental Petition has been prepared in good faith, and that all references to NRC records are to publicly available materials accessible in ADAMS.

Executed in accordance with 10 C.F.R. § 2.304(d) this 01 day of November, 2025

/s/ Alan Blind

Alan Blind

Pro Se Petitioner and Representative for Joint Petitioners

Docket No. 50-255-LA

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Baroda, Michigan 49101

Telephone: (269) 303-6396

Email: a.alan.blind@gmail.com

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing *Supplemental Petition to Intervene (Final Supplemental Filing)* have been served in accordance with the Commission's E-Filing Rule, 10 C.F.R. § 2.305, on the NRC Office of the Secretary, the Office of Commission Appellate Adjudication, the Office of the General Counsel, and all participants in this proceeding through the NRC's Electronic Information Exchange (EIE) system this 01 day of November, 2025.

/s/ Alan Blind

Alan Blind

Pro Se Petitioner and Representative for Joint Petitioners

ATTACHMENT 1: PROPOSED ORDER GRANTING LEAVE AND SETTING DEADLINES

PROPOSED ORDER

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Jeremy A. Mercer, Chair

Dr. Gary S. Arnold

Dr. Arielle J. Miller

In the Matter of:

HOLTEC PALISADES, LLC

(Palisades Nuclear Plant)

Docket No. 50-255-LA-5

ASLBP No. 25-990-02-LA-BD01

ORDER (Accepting Supplemental Petition and Establishing Filing Schedule)

Joint Petitioners have moved for leave to file a Supplemental Petition responding to Holtec's September 23, 2025 License Amendment Request. The Board finds that the revised filing includes new, material information and that Petitioners' consolidated submission is timely under the Board's August 5, 2025 Initial Prehearing Order and the Commission's October 1, 2025 shutdown notice.

Accordingly, it is hereby ordered that:

1. Petitioners' Motion for Leave is granted.
2. Petitioners' Supplemental Petition (Attachment 2) is accepted for adjudication.
3. Holtec and NRC Staff shall file Answers within 30 days after restoration of government funding.
4. Petitioners may file a Reply within 10 days after service of the Answers. Unless otherwise ordered, the Reply remains subject to previously established page limits.
5. All deadlines are subject to further extension or modification if shutdown tolling continues.

It is so ordered.

FOR THE ATOMIC SAFETY AND LICENSING BOARD:

/RA/

Jeremy A. Mercer

Chair, Administrative Judge Rockville, Maryland

[Date to be inserted]

**ATTACHMENT 2:
JOINT PETITIONERS' SUPPLEMENTAL PETITION IN
RESPONSE TO HOLTEC'S SEPTEMBER 23, 2025 LAR FILING**

November 1, 2025

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Before the Atomic Safety and Licensing Board**

In the Matter of:

Holtec Palisades, LLC / Palisades Energy, LLC

(Palisades Nuclear Plant – License Amendment Request to Revise NFPA-805 Transition License Conditions)

From: Joint Petitioners: Alan Blind, Jody Flynn, Tom Flynn, Bruce Davis, Karen Davis, Christian Moevs, Mary Hoffman, Chuck Hoffman, Diane Ebert, David Simonelli, Terese McCarthy Alsterda, William Connor, Telene Edington, and Sally Nosal.

Note: Each of the above Joint Petitioners has submitted a Declaration Sheet (included in the Consolidated Petition, ADAMS Accession No. ML25250A001) affirming their individual basis for standing under 10 C.F.R. § 2.309(d) and formally designating Alan Blind as their Joint Petitioner Representative under 10 C.F.R. § 2.316.

Prepared and Submitted by: Alan Blind, Joint Petitioner and Joint Petitioner Representative

Docket: 50-255-LA-5 | License No. DPR-20

**PROCEDURAL BASIS AND RELATIONSHIP TO MOTION FOR
LEAVE**

This Supplemental Petition is filed pursuant to the Atomic Safety and Licensing Board’s Initial Prehearing Order dated August 5, 2025 (ML25217A517) and the Joint Petitioners’ Motion for Leave to File Supplemental Petition and for Alternative Procedural Relief (filed November 1, 2025), which requests that this Supplemental Petition be accepted as Attachment 2 to that Motion.

This filing is further submitted in accordance with the Board's **requested Scheduling Order**, to be issued in response to the Participants' *Joint Motion Requesting Revised Briefing Schedule*, authorizing supplemental pleadings addressing Holtec Palisades, LLC's *September 23, 2025 Supplemental License Amendment Request* (ML25274A074).

RELATIONSHIP TO THE SEPTEMBER 7, 2025 CONSOLIDATED PETITION

This Supplemental Petition does not supersede, withdraw, or otherwise replace the *September 7, 2025 Joint Petitioners' Consolidated Petition* (ML25250A001), which remains an operative pleading with respect to all contentions directed to Holtec's *June 24, 2025 License Amendment Request*. Rather, this Supplemental Petition is filed pursuant to the same procedural authorities described above—the *Initial Prehearing Order* (ML25217A517), the *Joint Petitioners' Motion for Leave to File Supplemental Petition and for Alternative Procedural Relief* (filed November 1, 2025), and the Board's **requested Scheduling Order**—to address the new and materially expanded information contained in Holtec Palisades, LLC's *September 23, 2025 Supplemental License Amendment Request* (ML25274A074).

The Joint Petitioners submit this supplemental pleading to ensure that the record before the Board fully reflects the current and operative version of the License Amendment Request and to preserve their procedural rights under 10 C.F.R. §§ 2.309(f) and 2.309(c). This filing supplements and expands upon the arguments and contentions previously advanced in the Consolidated Petition, incorporating the materially revised information contained in Holtec's September 23, 2025 submittal. It is filed to maintain procedural fairness and to ensure

completeness of the adjudicatory record in light of Holtec’s substantially revised September 23, 2025 application.

Both pleadings—the *September 7, 2025 Consolidated Petition* and this *Supplemental Petition*—should be read *in pari materia*, as complementary components of a single, continuous adjudicatory record. Together, they constitute the complete and continuous statement of Joint Petitioners’ contentions, arguments, and supporting bases, as authorized by the *Initial Prehearing Order* (ML25217A517) and the requested Scheduling Order issued in response to the *Participants’ Joint Motion Requesting Revised Briefing Schedule*, all submitted on November 1, 2025, to comply with the 30-day filing requirement and the order for consolidated filings.

CONFORMANCE WITH JUDGE’S ORDERS ON SUBMISSION FORMAT AND CONTENT

This Supplemental Petition conforms to all procedural, formatting, and content requirements established by the Atomic Safety and Licensing Board in its *Initial Prehearing Order* dated August 5, 2025 (ML25217A517) dated September 17, 2025 (ML25304A112). It observes all directives regarding double spacing, margins, and font size.

For the Consolidated Petition submitted on September 7, 2025, no page or word limit was imposed by the Board—consistent with Judge Mercer’s directive in the August 5, 2025 Order that all prior submittals and supplements be consolidated into a single comprehensive filing. This Supplemental Petition follows the same format, organization, consolidation, and citation style as

that filing and is prepared in full conformance with the Board's orders and the procedural standards of 10 C.F.R. § 2.304(d).

CERTIFICATION OF COMPLIANCE WITH THE BOARD'S INITIAL PREHEARING ORDER

Pursuant to the Atomic Safety and Licensing Board's Initial Prehearing Order dated August 5, 2025 (ADAMS Accession No. ML25217A517), Joint Petitioners hereby certify that they have read, understand, and will comply with all procedural directives contained therein, including the requirements governing formatting, service, page limitations, and the scope and content of reply submissions. This Supplemental Petition is submitted in conformity with that Order and in accordance with 10 C.F.R. § 2.304(d) and § 2.323(d).

As **pro se petitioners**, the Joint Petitioners' Representative respectfully represents that Joint Petitioners have and will endeavor in good faith to meet the spirit and intent of all procedural and formatting requirements contained in the Board's orders. To the extent any minor deviation may occur due to the absence of formal legal training, Joint Petitioners respectfully request that the Board afford the customary measure of reasonable deference extended to self-represented participants acting in good faith.

TABLE OF CONTENTS

Procedural Basis and Relationship to Motion for Leave	1
Relationship to the September 7, 2025 Consolidated Petition	2
Conformance with Judge's Orders on Submission Format and Content	3
Certification of Compliance with the Board's Initial Prehearing Order	4

Table Of Contents	4
Executive Summary	17
<i>Introduction -----</i>	<i>17</i>
<i>Overall Petition Strategy -----</i>	<i>18</i>
<i>Timeline of Relevant Holtec LAR Submittal Events -----</i>	<i>19</i>
<i>Central Showing of this Petition -----</i>	<i>19</i>
<i>Summary of the New Contentions -----</i>	<i>21</i>
<i>Relationship Between Contentions Six and Seven With Appendix R Remote-Shutdown Requirements -----</i>	<i>24</i>
<i>Demonstrating the Correct Path—Entergy’s 50.90 Model versus Holtec’s Shortcut Use of “Administrative” Basis -----</i>	<i>25</i>
<i>Requested Relief Summary -----</i>	<i>26</i>
<i>Conclusion -----</i>	<i>27</i>
Roadmap and Structure of this Supplemental Petition	27
Table of Authorities Additions, Added for This Supplemental Petition	36
<i>Mathematical and Logical Laws Supporting Admissibility Under 10 C.F.R. § 2.309 -----</i>	<i>36</i>
<i>Doctrine of Material Alteration -----</i>	<i>37</i>
<i>Regulatory Issue Summary 2004-03 (Revision 1) -----</i>	<i>37</i>
<i>Advisory Committee on Reactor Safeguards (ACRS) Full Committee Meeting – Palisades Nuclear Plant Restart -----</i>	<i>38</i>
<i>Regulations -----</i>	<i>38</i>
<i>NRC and Licensee Filings -----</i>	<i>39</i>
<i>State Filings and Related Pleadings -----</i>	<i>39</i>
<i>Atomic Safety and Licensing Board and Commission Decisions -----</i>	<i>40</i>
<i>Technical Standards and NRC Fire-Protection Methodologies -----</i>	<i>40</i>
Key Arguments Addressing the Revised Holtec License Amendment Request and Replacement Technical Attachment	42
<i>Introductory Note; Scope of Arguments in This Supplemental Petition -----</i>	<i>42</i>

<i>1. Holtec’s September 23, 2025 Filing Constitutes a New and Independent License Amendment Request (LAR)</i> -----	43
<i>2. Application of the Doctrine of Material Alteration to Establish Substitution --</i>	44
<i>4. Two Procedural Pathways for Admissibility Under 10 C.F.R. § 2.309</i> -----	44
<i>5. Sufficiency of Petitioners’ Filings if Substitution Is Accepted</i> -----	45
<i>6. Holtec’s Expansion of the NFPA-805 Scope Transforms the Licensing Action</i>	45
<i>7. Procedural Consequences of Holtec’s Replacement Filing</i> -----	45
<i>8. Holtec’s Use of Non-Regulatory Terminology Lacks Legal Foundation</i> -----	46
<i>9. Incomplete and Unsupported Defense-in-Depth (DID) Assertion</i> -----	46
<i>10. Holtec’s Claimed “Supply-Chain Constraints” and “Project-Planning Adjustments” Are Not a Legal Basis for § 50.90 Relief</i> -----	46
<i>11. Holtec’s Deferral Strategy Creates Indefinite and Contingent Outcomes</i> --	46
<i>13. Deferral of S2-37 Compromises Habitability and Nullifies Alternate Shutdown Capability</i> -----	47
<i>14. Continued Absence of Deterministic Evaluation and Updated Attachments -</i>	48
<i>15. Deterministic–Probabilistic Hierarchy</i> -----	48
<i>16. The Supplemental LAR Fails § 50.90 and “Substantial Progress” Because It Seeks Indefinite, Contingent Outcomes and Defers Core Obligations to a Future LAR</i> -----	49
<i>17. Failure to Provide Deterministic and § 50.59 Operator-Action Evaluations for S2-19 (AHSOP Independent DC Power)</i> -----	49
<i>18. Failure to Provide Deterministic and § 50.59 Evaluations for S2-37 (Turbine-Building Ventilation and Habitability Control)</i> -----	49
<i>19. Inconsistent ACRS and LAR Representations and Regulatory “Substantial Progress” Baseline</i> -----	50
<i>20. Failure to Demonstrate “Substantial Progress” Under NRC’s Palisades Standard</i> -----	51
<i>21. Substitution of “Administrative” for “Reasonable Assurance”</i> -----	52

22. Entergy's NFP-805 License Amendments Establish the Required "Form of the Original" Standard for § 50.90 -----	53
Annunciation of Pro Se Status and Request for Reasonable Deference in Presentation	53
<i>Pro Se Representation</i> -----	53
<i>Holtec's Actions Alone, Bring on More Complexity</i> -----	54
<i>substance governs over form</i> -----	54
<i>Attorney General of the State of Michigan v. Holtec Palisades LLC</i> -----	55
Summary of Key Submittals and Procedural Milestones and Factual Differences	56
<i>The Submittals</i> -----	56
<i>Factual Differences Between Holtec's June 24 and September 23 2025 Submittals</i> -----	58
Application of Set Theory and Associative Math Theory in Support of the Law of Admissibility (§ 2.309)	59
<i>Application of the Doctrine of Material Alteration in Support of the Law of Admissibility (§ 2.309)</i> -----	62
For the Full Record: Holtec September 23 Submission, Scope Addition Descriptions: missing from Holtec LAR submittals	64
<i>Introduction to Expanded Table S-2 Descriptions</i> -----	65
<i>Table S2-13 – Component Cooling Water (CCW) System Control Circuit Protection</i> -----	67
<i>Table S2-15 – Spurious Operation of Reactor Head / Pressurizer Vent Valves</i>	68
<i>Table S2-19 – Alternate DC Power Supply for Auxiliary Hot Shutdown Panel (AHSOP)</i> -----	70
<i>Table S2-23 – Electrical Coordination Modification</i> -----	72
<i>Table S2-37 – Turbine Building Fresh Air Fan Modification</i> -----	73
Admission, Applicability of 10 C.F.R. § 2.309(f) — and/Or Alternative Showings Under §§ 2.309(c)	74
<i>Roadmap — Admission, Applicability of 10 C.F.R. § 2.309(f), and Alternatives under §§ 2.309(c)</i> -----	74

<i>Procedural Path Summary</i> -----	76
<i>Replacement of the Entire Enclosure — Why the September 23</i> -----	77
<i>Filing Supersedes the June 24 LAR</i> -----	77
<i>Details of Scope and Depth of Holtec’s LAR Changes, Necessary Attachments Remain Missing</i> -----	79
<i>Primary Procedural Path Basis: Applicability of 10 C.F.R. § 2.309(f) and Satisfaction of the Six Admissibility Criteria</i> -----	81
<i>Alternative Showing of Good Cause Under 10 C.F.R. § 2.309(c)(1)</i> -----	84
<i>Sufficiency of Petitioners’ Filings if Substitution Is Accepted</i> -----	88
Precedent Demonstrating the Admissibility of Completeness-Based Contentions, 50-155-LT-2	89
<i>Purpose and Scope of This Section</i> -----	89
<i>Precedent from the Michigan Attorney General Proceeding:</i> -----	90
<i>The ASLB’s Admission of a Contention Based on Missing Indispensable Information</i> -----	90
<i>The Michigan Attorney General’s Reply Reinforcing Admissibility Based on Missing or Unsupported Information</i> -----	91
<i>The ASLB’s Ruling To the Attorney Generals Contention, in LBP-22-08</i> -----	93
<i>Application of The Michigan AG’s Precedent to Holtec’s September 23, 2025 LAR and Joint Petitioners’ Contention Admissibility</i> -----	94
Demonstration that Each of the Seven Contentions Satisfies the 10 C.F.R. § 2.309(f)(1) Admissibility Requirements	96
<i>Introduction</i> -----	96
<i>Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)</i> -----	97
<i>Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety- Margin Evaluations (Consolidated Petition)</i> -----	97
<i>Contention 3 – Omission of Required Technical-Specification Changes for S2-15 (Reactor-Coolant-System Vents) (Consolidated Petition)</i> -----	98
<i>Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License- Condition Commitments and Enforcement Requirements (Supplemental</i>	

<i>Petition)</i> -----	98
<i>Contention 5 – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)</i> -----	99
<i>Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)</i> --	99
<i>Contention 7 – Failure to Provide Deterministic and § 50.59 Evaluations for S2-37 (Turbine-Building Fresh-Air Fans / Habitability) (Supplemental Petition)</i> -----	100
<i>Summary</i> -----	101
Background: Historical and Regulatory Evolution of Appendix R, Manual Operator Actions, and Hot-Short Vulnerabilities Leading to NFPA-805	101
<i>Introduction to Historical Context</i> -----	102
<i>Historical Background: From Appendix R to NFPA-805</i> -----	103
<i>Growing Concern with Manual Operator Actions</i> -----	104
<i>The “Hot-Short” Problem and NRC-Wide Reevaluation</i> -----	104
<i>Transition to Performance-Based Regulation and NFPA-805</i> -----	105
<i>Enforcement During Transition</i> -----	106
<i>Summary and Connection to Current Table S-2 Issues</i> -----	107
Palisades’ Legacy Cable Construction and Its Regulatory Significance under NUREG/CR-6850 Thermoplastic-Insulated Wires and Cables	108
<i>Introduction and Connection to the Historical Record</i> -----	108
<i>Documented NRC Basis and License History</i> -----	109
<i>NUREG/CR-6850 Within the Palisades Current Licensing Basis</i> -----	110
<i>NUREG/CR-6850 Treatment of Thermoplastic Cable Behavior</i> -----	111
<i>Application to the September 23, Holtec Supplemental LAR Request to Defer NFPA-805 Table S-2 Items</i> -----	112
<i>Regulatory So-What</i> -----	112
Dependence of Completed NFPA-805 Modifications on the Operability of the Auxiliary Hot Shutdown Panel (AHSOP), Item S2-19	113
<i>Deferral of S2-19 Makes All Completed Modifications Moot</i> -----	113

<i>Auxiliary Feedwater, AFW, System Control and Operation</i> -----	116
<i>Instrumentation and Monitoring Functions</i> -----	116
<i>Functional Role in Hot Shutdown and Cooldown</i> -----	117
<i>Long-Term Cooling and Water Supply</i> -----	118
<i>Deterministic Dependence and Licensing Implications</i> -----	118
Dependence of Completed NFPA-805 Modifications on the Operability of the Turbine-Building Fresh-Air Fans (V-210), Item S2-37	119
<i>Deferral of S2-37 Undermines Post-Fire Safe-Shutdown Capability</i> -----	119
<i>Functional Role in Alternate-Shutdown Operations</i> -----	120
<i>Deterministic Dependence and Licensing Implications</i> -----	121
Holtec’s Introduction of Non-Regulatory Terminology: “Compliance” and “Risk-Reduction” Modifications	122
<i>Holtec’s Introduction of Non-Regulatory Terminology: “Compliance” and “Risk-Reduction” Modifications</i> -----	122
<i>NFPA-805 Does not use Compliance” or “Risk-Reduction” Modifications</i> --	123
<i>Prior Holtec June 2025 Submittals Did Not Use Compliance” or “Risk-Reduction” Modifications</i> -----	123
<i>Holtec in Its September Supplemental LAR, now introduces Compliance” and “Risk-Reduction” Modifications</i> -----	124
<i>A Distinction Without A Difference</i> -----	124
Failure to Preserve the Regulatory Basis for the NRC’s “Reasonable Assurance” Finding	126
<i>NRC NFPA-805 2015 Finding of “Reasonable Assurance</i> -----	126
<i>Holtec’s September 23 2025 LAR, Changes are “Administrative”</i> -----	127
<i>Regulatory Impact</i> -----	127
<i>Inability of NRC Staff or Joint Petitioners to Review Holtec’s Categorization</i> ---	128
Holtec’s Improper Framing of License Condition Obligations as a Scheduling Issue	129
<i>Holtec’s Scheduling Requirements and the Operative Issue</i> -----	130

<i>The Regulatory Consequence</i> -----	131
<i>Schedule Is Not a Safety Basis</i> -----	131
<i>Statements to Congress</i> -----	132
Holtec’s Claimed “Supply Chain” Delays Are Contradicted by Its Own Public Statements	133
<i>Holtec’s Supply Chain Statement</i> -----	133
<i>Board Alert: Material Inconsistency Undermining Confidence in the LAR Record</i> -----	134
<i>These statements directly contradict Holtec’s September 23</i> -----	135
<i>Regulatory Evaluation: Holtec’s Supply Chain Delays</i> -----	135
<i>Adjudicatory Relevance of Holtec’s “Supply Chain” Claim</i> -----	137
Scope and Regulatory Significance of Holtec’s Anticipated Facility Modifications, Provided to NRC Technical Specification Reviewers	138
<i>Introduction and Factual Basis</i> -----	138
<i>Regulatory Framework for Configuration Control of Facility Modifications upon the Fire Protection Program</i> -----	139
<i>Deterministic Evaluation Requirements</i> -----	140
<i>Integration into NFPA-805 License Amendments</i> -----	141
<i>Significance to the Palisades Record</i> -----	142
<i>Conclusion</i> -----	143
Holtec’s Continuing Pattern of Unfulfilled Commitments Despite Demonstrated Resources; Working-Hours Relief Request, No “Substantial Progress: Focus On Restart, Not on License Commitments”	143
<i>Legal Basis for Board Consideration</i> -----	144
<i>Introduction to the New Supporting Information</i> -----	144
<i>Concurrent Submittals: Working-Hours Relief and License-Condition Fire-Protection Modification Relief</i> -----	145
<i>Contradictory Representations: Workforce Capacity vs. Supply-Chain Constraints</i> -----	146
<i>No Updated “Substantial Progress” Information Provided to the NRC</i> -----	146

<i>Regulatory Impact</i>	147
New Supporting Subsection: Holtec’s October 2025 RAI Response Expands the Work-Hour Relief Period and Identifies Key Electrical Work Groups—Further Undermining Its Claimed “Resource Constraints”	148
<i>Holtec Response to NRC Request For Additional Information</i>	148
<i>Electrical Resources Needed for Remaining NFPA Modifications</i>	148
<i>Holtec Argues it has flexibility in Resource management</i>	148
<i>Holtec Fails to Finish NFPA-805 License Condition Modifications</i>	149
Holtec’s Expanded September DID and Safety Margin Statement Remains Only a Conclusionary Assertion	149
<i>Holtec’s Submittal Remains Flawed</i>	150
<i>The Regulatory Standard Under 10 C.F.R. § 50.90</i>	151
<i>NRC Precedent Confirms This Standard</i>	152
<i>The Entergy 2018 LAR Submittal, Defense in Depth, DID Precedent</i>	153
<i>Holtec’s September LAR Fails the Same Standard</i>	154
<i>Conclusionary Statements</i>	155
<i>Conclusion</i>	155
Roadmap: Palisades, Demonstrating Compliance with the § 50.90 “Form of the Original” Holtec Can Repair LAR Flaws and Chooses Not to	155
<i>Introduction</i>	156
<i>Established the § 50.90 Base for the Form That Must Be Followed for Future LARs</i>	157
<i>Entergy’s Administrative Letters — No Effect on the License Condition, Scope, or Trigger</i>	158
<i>Updated the § 50.90 Base for the Form That Must Be Followed for Future LARs</i>	159
<i>Updated the § 50.90 Base for the Form That Must Be Followed for Future LARs</i>	159
<i>Established the Current NFPA-805 Table S-2 License-Condition Scope and Trigger for Completion</i>	160

<i>Clarifying Point</i> -----	161
<i>Conclusion — Applying the § 50.90 Standard to Holtec’s Current Filing</i> ----	161
<i>Holtec Can Correct its September 23 LAR, But Chooses Not To</i> -----	163
Road Map of Regulatory Trail: Holtec’s Failure to Provide Updated Attachments Renders Its Supplemental Submittal Incomplete	163
<i>Regulatory Framework Governing Fire-Protection Modifications</i> -----	164
<i>Relevance of the 1996 Deferred Enforcement to Holtec’s Current Deficiencies</i> --	168
<i>Regulatory Consequence</i> -----	168
Entergy’s 2018 NFPA-805 LAR — Purpose, Public Proxy, and Required Form (Including DID & Safety Margins), ML16344A088	169
<i>What this section is about.</i> -----	169
<i>The Entergy 2018 LAR, Full Description and Form, ML 16344A088</i> -----	170
<i>Summary (what this means for our argument)</i> -----	170
<i>Conclusion for this section</i> -----	171
A Road Map, Deterministic–Probabilistic Hierarchy: Why Holtec’s Reliance on PRA Alone Is Insufficient: PRA Stands On Deterministic Shoulders	171
<i>Holtec’s Reliance Only on PRA Statements</i> -----	172
<i>The Regulatory Trail and Use of PRA</i> -----	173
<i>Holtec’s September 23 LAR submittal is flawed and does not meet §50.90 Content Requirements</i> -----	174
<i>Summary: PRA itself is not a Substitute</i> -----	174
Road Map; Continuation and Conditional Nature of Palisades’ Enforcement Discretion	175
<i>Enforcement discretion for Palisades originally ended on November 30, 2008--</i>	175
<i>Entergy’s New Request for Enforcement Discretion, Conditioned on Substantial Progress</i> -----	176
<i>Ongoing CLB, Substantial Progress</i> -----	176

Regulatory Roadmap: Origin and Continuing Applicability of the NRC’s “Substantial Progress” Criterion for Enforcement Discretion 177

<i>Purpose of This Roadmap</i> -----	177
<i>Legal Framework</i> -----	179
<i>Development of the “Substantial Progress” Standard</i> -----	179
<i>Application to Palisades in 2008, The Current Licensing Basis, CLB</i> -----	180
<i>NRC Oversight After 2008</i> -----	181
<i>Regulatory Consequence of Non-Compliance</i> -----	181
<i>Implications for Current Proceedings</i> -----	182

Palisades-Specific NRC Standard for Demonstrating “Substantial Progress” in NFPA-805 Transition 182

<i>Licensing Basis for Documentation of “Substantial Progress”</i> -----	183
<i>Project Milestone Table</i> -----	184
<i>Substantial Progress Documented Not Inferred</i> -----	184
<i>Holtec’s Supplemental LAR filing is flawed</i> -----	184

Road Map: Holtec’s September 23, 2025 Supplemental LAR Confirms Ongoing Noncompliance with NRC’s Required Submittal Criteria for Enforcement Discretion 185

<i>Enforcement Discretion Application Flaws Not Corrected in Holtec Supplement</i> -----	185
<i>Added Scope For Added Time of Enforcement Discretion</i> -----	187
<i>enforcement framework governing Palisades</i> -----	188

Road Map of Origins, the Two Sets of Required Submittals—and Why Holtec Must Provide Both Today 190

<i>Appendix R / 1978–1996 Enforcement Path (Deterministic track)</i> -----	190
<i>What this established / How it applies today</i> -----	191
<i>2008 NFPA-805 Transition / Enforcement-Discretion Path (Performance-based track)</i> -----	192
<i>What this established / How it applies today</i> -----	192

<i>2018–2019 NFPA-805 License-Basis Submittals (What a compliant § 50.90 package looked like), basis for following as far as applicable, the form prescribed for original applications. -----</i>	<i>193</i>
<i>Bottom line for the Board -----</i>	<i>194</i>
Road Map of NRC Regulatory Issue Summary 2004-03 (Rev. 1): Enforcement Boundaries for Fire-Induced Circuit Vulnerabilities	196
<i>Regulatory Issue Summary 2004-03 (Rev. 1): Bridging Appendix R Enforcement and NFPA-805 Transition -----</i>	<i>196</i>
<i>Role Within the Regulatory Flow -----</i>	<i>197</i>
<i>Analysis and Relevance to This Proceeding -----</i>	<i>197</i>
<i>Regulatory Consequence -----</i>	<i>198</i>
Holtec’s Inconsistent Representations Between the 2024 ACRS Presentation and the September 23 2025 Supplemental LAR	199
<i>2024 ACRS Overview -----</i>	<i>200</i>
<i>Contradiction of the Public Record -----</i>	<i>201</i>
<i>Regulatory Significance of ACRS Statements -----</i>	<i>202</i>
<i>OGC Arguments Support Petitioners’ Position that the ACRS Record Defines the Regulatory Baseline -----</i>	<i>203</i>
Holtec’s Failure to Provide Required Attachments Under NRC Guidance ML16015A416 and § 50.90	206
<i>Introduction -----</i>	<i>206</i>
<i>Form and Substance -----</i>	<i>207</i>
<i>Holtec’s September 23 Filing, No Attachment W -----</i>	<i>208</i>
<i>Enforcement Description Requirements -----</i>	<i>208</i>
<i>Regulatory Impact -----</i>	<i>210</i>
New Contention Five, Similar to Contention Two: Indefinite and Contingent Outcomes and Future Deletions of Commitments	210
<i>Roadmap — Contention Five -----</i>	<i>210</i>
<i>Contention Five Summary -----</i>	<i>216</i>

<i>Failure to Meet § 50.90 Completeness</i> -----	217
<i>Failure to Demonstrate “Substantial Progress”, Contention Five</i> -----	218
<i>Failure to Meet NRC’s NFPA-805 LAR Content Requirements (ML16015A416)</i> 219	
<i>Requested Relief, New Contention Five</i> -----	221
<i>Key Arguments for Contention Five</i> -----	223
<i>Table of Authorities For Contention Five</i> -----	225
New Contention Six – Failure to Provide Required Deterministic and § 50.59 Manual-Operator-Action Analyses for Deferring S2-19 (Alternate DC Power Supply for the Auxiliary Hot Shutdown Panel)	227
<i>Roadmap for Contention Six</i> -----	227
<i>Summary — Failure to Provide Deterministic and § 50.59 Evaluations for S2-19 (AHSOP Independent DC Power)</i> -----	229
<i>Regulatory Basis and Citations</i> -----	229
<i>Detailed Basis for Contention</i> -----	231
<i>G. Dependence of Completed NFPA-805 Modifications on the Operability of the Auxiliary Hot Shutdown Panel (AHSOP)</i> -----	234
<i>Material Issue and Genuine Dispute (10 C.F.R. § 2.309(f)(1))</i> -----	235
<i>Requested Relief</i> -----	236
New Contention Seven – Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)	237
<i>Roadmap for Contention Seven</i> -----	237
<i>Summary — Failure to Provide Deterministic and § 50.59 Evaluations for S2-37 (Turbine-Building Fresh-Air Fans / Habitability)</i> -----	239
<i>Defense-in-Depth (DID) Under Appendix R</i> -----	240
<i>Regulatory Basis and Citations</i> -----	240
<i>Detailed Basis for Contention</i> -----	241
<i>Material Issue and Genuine Dispute (10 C.F.R. § 2.309(f)(1))</i> -----	243
<i>Requested Relief</i> -----	244

Standing: Inputs from Holtec’s Supplemental LAR	245
Requested Relief (Supplemental; Cross-Referenced to the Consolidated Petition Request For Relief items	247
CERTIFICATION UNDER 10 C.F.R. § 2.304(d)	250
CERTIFICATE OF SERVICE	250

=====End of Table of Contents=====

EXECUTIVE SUMMARY

INTRODUCTION

This Supplemental Petition expands upon the September 7, 2025 Consolidated Petition and demonstrates that Holtec Palisades, LLC’s September 23, 2025 “*Supplemental*” License Amendment Request (LAR)—which materially altered the original June 24, 2025 submittal titled “*License Amendment Request to Change the Full Compliance Implementation Date for the Fire Protection Program Transition License Condition*” (ADAMS Accession No. ML25175A275)—fails to meet the procedural and substantive requirements of 10 C.F.R. § 50.90.

Holtec’s September, 2025 filing does not *fully describe the changes desired* or *follow the form prescribed for original applications* as required by § 50.90, and it omits indispensable information necessary for the NRC to perform the completeness and safety evaluations mandated by § 50.92.

Rather than supplementing the June 24, 2025 submittal, Holtec’s September 23 filing replaces all prior enclosures, expands the scope of the request by introducing new categories of modifications, revises completion dates, and reframes enforceable NFPA-805 license-condition obligations as discretionary “*project activities*.” These changes collectively constitute a **material alteration** of Holtec’s June 2025 licensing request, thereby, Joint Petitioner’s will argue,

triggering new procedural notice and hearing rights under **10 C.F.R. § 2.309(f)**, and/or providing alternative procedural bases for consideration under **10 C.F.R. § 2.309(c)**.

OVERALL PETITION STRATEGY

This Supplemental Petition builds upon the existing record by providing a more complete technical and regulatory explanation of each NFPA-805 Table S-2 modification that Holtec Palisades' September 23, 2025 filing seeks to defer. Holtec's filing omits these essential details, leaving both the NRC Staff and the Board without sufficient information to meaningfully evaluate either the License Amendment Request or this Petition. Using these detailed descriptions, the Petition demonstrates that the deferred items are not simple "administrative" scheduling matters, but integral safety features embedded in the plant's current licensing basis and engineering design requirements derived from 10 C.F.R. Part 50, Appendix R—information indispensable for the NRC's evaluation of Holtec's request. Appendix R contains the deterministic requirements upon whose shoulders every Probabilistic Risk Assessment (PRA) must stand.

The Petition then reviews the prior Entergy license amendment submittals that originally established the current fire-protection license conditions, showing that those filings contained the technical, engineering, and regulatory detail required for NRC approval of any change. In contrast, Holtec's September 23, 2025 LAR omits this level of completeness. Finally, directed to the Board's authority under 10 C.F.R. § 50.90, the Petition demonstrates that the required "full description" and "*same form as the original submission*" criteria are not met—rendering Holtec's application procedurally and substantively deficient and leaving the NRC without the indispensable information needed to perform its § 50.92 safety evaluation.

TIMELINE OF RELEVANT HOLTEC LAR SUBMITTAL EVENTS

- **June 24, 2025** – Holtec files its original LAR to defer S2-13 and S2-15 (ML25175A275).
- **July 16, 2025** – NRC issues Federal Register Notice (ML25181A013) identifying only S2-13 and S2-15.
- **September 7, 2025** – Joint Petitioners file Consolidated Petition (ML25250A001).
- **September 23, 2025** – Holtec files a “*Supplemental*” License Amendment Request (LAR) (ADAMS Accession No. ML25274A074), **replacing all prior enclosures, expanding the scope** from two deferred NFPA-805 Table S-2 items (S2-13 and S2-15) to five (adding S2-19, S2-23, and S2-37), **introducing new “*compliance*” and “*risk-reduction*”** classifications, and requesting NRC approval by **October 24, 2025**.

CENTRAL SHOWING OF THIS PETITION

Holtec’s *September 23, 2025* License Amendment Request (LAR) fails to satisfy **10 C.F.R. § 50.90’s** core requirement that a license amendment application must “*fully describe the changes desired and follow, as far as applicable, the form prescribed for original applications.*”

The NRC’s prior NFPA-805 approvals—**Amendment 254** (ML15007A191) and **Amendment 269** (ML19198A080)—established a defined License Amendment Request (LAR) structure consistent with both the application format referenced in § 50.90 and the guidance in *NUREG-1764, “Guidance for the Review of Changes to License Amendment Requests For NFPA-805 License Conditions”* Those approved submittals included **Attachments M, S-1, S-2, and W**, along with the required **Defense-in-Depth (DID)** and **safety-margin analyses**. Together, these elements form part of the plant’s **current licensing basis (CLB)** and collectively satisfy §

50.90's directive that license amendment requests "*follow as far as applicable the form prescribed for original applications.*"

By contrast, Holtec's *September 23, 2025* submittal omits these attachments, provides no updated Defense-in-Depth or safety-margin evaluations, provides no "substantial progress" information, and fails to include the deterministic analyses necessary to demonstrate compliance with Appendix R and NFPA-805. Instead, it relies on high-level, conclusionary statements and probabilistic risk assessment (PRA) "rankings" as a substitute for the required deterministic basis. NRC does not allow use of PRA alone as a substitute for updated defense in depth, DID, and margin analysis when requesting a change to the NFPA-805 License Conditions.

This PRA substitution for any Defense in Depth Analysis, DID, is explicitly inconsistent with the NRC's 2019 *Request for Additional Information* for Palisades (ML19122A485), which cautioned that: "*Meeting risk guidelines does not constitute meeting defense-in-depth.*"

That instruction makes clear that PRA conclusions alone cannot replace the deterministic Defense-in-Depth evaluations required to demonstrate regulatory compliance and safety equivalency under NFPA-805 and § 50.90.

Because the application no longer includes the analyses, commitments, or documentation necessary to support a § 50.92 reasonable-assurance finding or the continuation of enforcement discretion, it is both procedurally incomplete and substantively deficient.

The Petition further shows that Holtec's September, 2025 filing does not meet the **1996 and 2008 NRC enforcement-discretion frameworks**, which conditioned Palisades' continued operation on timely completion of fire-protection modifications and demonstrable "*substantial progress.*"

Holtec provides no evidence in its September 23 filing of any such progress and therefore cannot lawfully rely on expired enforcement discretion to justify further deferral of its NFPA-805 license-condition obligations.

SUMMARY OF THE NEW CONTENTIONS

Contention Five — Failure to Meet § 50.90 Completeness and Enforcement-Discretion

Standards

Contention Five consolidates and extends Petitioners’ prior arguments to address the September 23, 2025 filing, which fundamentally altered both the technical and procedural posture of this proceeding.

1. Procedural Incompleteness under 10 C.F.R. § 50.90

The September 23 submittal constitutes a *new amendment* under the **Doctrine of Material Alteration** because it replaces the prior enclosure, adds three new deferred NFPA-805 Table S-2 items (S2-19, S2-23, S2-37), and introduces new “*compliance*” and “*risk-reduction*” classifications, applied to all Table S2 items, with three Table S2 items beyond the July 16 Federal Register notice.

By introducing new scope and open-ended commitments for “*future LARs*,” Holtec’s September 23, 2015 filing, fails § 50.90’s requirement to fully describe the desired changes and to follow the form of the original NFPA-805 application (ML12348A455).

2. Substantive Deficiency under 1996 and 2008 Enforcement-Discretion Frameworks

From 1978 through 2008, Palisades operated under deferred Appendix R enforcement, reaffirmed by the **1996 Civil Penalty (ML003705300)** requiring compensatory measures

until completion of required fire-protection modifications.

The **2008 NRC correspondence (ML083260577)** reiterated that continued discretion depended on a documented showing of “*substantial progress*.”

Entergy previously, satisfied that condition through its 2018 LAR (ML18305B322), approved by **License Amendment 269 (ML19198A080)**.

Holtec’s 2025 filings omit the Appendix R enforcement record and the NFPA-805 transition documentation required under the 2008 agreement between Entergy and the NRC, thereby failing to satisfy the procedural and substantive prerequisites necessary to rely on any continued enforcement discretion.

Contention Five therefore asserts both:

- **Procedural incompleteness**, because the LAR lacks required form, attachments, and descriptions; and
- **Substantive failure**, because Holtec has not demonstrated “*substantial progress*” necessary for continued enforcement discretion.

Contention Six — Failure to Provide Deterministic and § 50.59 Operator Manual Action Evaluations for S2-19 (Alternate Hot Shutdown Panel, AHSOP, Independent DC Power)

S2-19 provides the alternate 125-V DC supply for the Auxiliary Hot Shutdown Panel (AHSOP)—the only credited remote-shutdown panel enabling safe shutdown if the control room is uninhabitable, the primary deterministic requirement of 10CFR50 Appendix R.

By deferring S2-19, Holtec removes the deterministically required independent DC train mandated by **Appendix R § III.L**, substituting unverified manual actions that have not been

analyzed under § 50.59 or NEI 96-07 configuration-control guidance.

This omission violates:

- § 50.90 and § 50.92 completeness requirements;
- The deterministic analysis mandate of Appendix R § III.L; and
- NEI 96-07 standards treating operator actions as part of the credited “*method of performing or controlling a function.*”

Without the independent DC source, the AHSOP’s safety function cannot be assured, reducing both **defense-in-depth** and **safety margin**.

This is a substantive alteration to the plant’s licensing basis that requires prior NRC approval under § 50.90 or a specific exemption under § 50.12—not a mere scheduling adjustment.

Contention Seven — Failure to Provide Deterministic and § 50.59 Evaluations for S2-37 (Turbine-Building Fresh-Air Fans / Habitability)

S2-37 qualifies the turbine-building ventilation fans and fire-rated duct paths that protect operator habitability and prevent smoke and heat spread during post-fire operations.

By deferring S2-37, Holtec removes the credited ventilation system necessary for operators to access and occupy the AHSOP, substituting unverified manual or compensatory actions in potentially smoke-filled spaces.

No deterministic Appendix R / NFPA-805 analysis or § 50.59 evaluation of these changed manual operator action conditions appears in the September 23 filing, contrary to §§ 50.90, 50.92, and NFPA-805 Chapter 3.

Because post-fire habitability underpins all AHSOP actions, failure to complete S2-37 renders other completed NFPA-805 modifications functionally moot.

RELATIONSHIP BETWEEN CONTENTIONS SIX AND SEVEN WITH APPENDIX R REMOTE-SHUTDOWN REQUIREMENTS

“It’s like putting new tires, brakes, and seatbelts on your car but never fixing the steering wheel or air vents. Everything looks safer on paper, but the moment you can’t steer or breathe, none of those improvements can save you.”— Alan Blind, Joint Petitioner

Under **Appendix R, Section III.L**, each nuclear plant must maintain a remote shutdown capability that is independent of the control room. At Palisades, this function is provided solely through the **Alternate Hot Shutdown Panel (AHSOP)**. The deferred modifications—**S2-19** (independent AHSOP DC power) and **S2-37** (habitability and ventilation control)—together provide the essential elements needed to ensure that capability remains functional.

S2-19 serves as the electrical *control center* of the entire **10 C.F.R. Part 50, Appendix R** safe-shutdown strategy, while S2-37 functions as its environmental *life-support system*. Without both systems in place, all other features of the alternate safe-shutdown strategy—including the completed **NFPA-805 Table S-2** modifications—cannot be credited and are therefore moot for as long as S2-19 and S2-37 remain incomplete.

Because these two modifications address distinct technical bases—**electrical independence** and **environmental survivability**—they are presented as separate, but complementary, contentions.

DEMONSTRATING THE CORRECT PATH—ENTERGY’S 50.90 MODEL VERSUS HOLTEC’S SHORTCUT USE OF “ADMINISTRATIVE” BASIS

Entergy provided the clear regulatory model for how Palisades license-condition changes must be handled under 10 C.F.R. § 50.90. Its December 2012 NFPA-805 License Amendment Request (PNP 2012-106, ML12348A455) presented a full Transition Report and Attachments M, S, and W, supplying all deterministic and risk-informed analyses in the “*form of the original*,” and resulted in Amendment 254 (ML15007A191), which formally incorporated Table S-2 and its completion trigger as enforceable license conditions. When Entergy later needed to revise that condition for one additional operating cycle, prior to entering decommissioning, Entergy, again filed a new and complete § 50.90 amendment, reproducing the entire analytical and regulatory framework, as in its prior December 2012 NFPA-805 License Amendment Request (PNP 2012-106, ML12348A455), so the NRC could perform a new safety finding. **That is the established path for compliance.**

Holtec’s September 23, 2025 filing, by contrast, follows the format of Entergy’s 2016 administrative letters that merely requested to suspend NFPA-805 work—seeking a pause in “*substantial progress*” well before the License Condition Table S-2 completion triggers—rather than the form of Entergy’s formal § 50.90 amendment requests. In doing so, Holtec omits the indispensable deterministic, defense-in-depth, and operator manual action § 50.59 evaluations required for NRC review under §§ 50.90 and 50.92.

Had Holtec mirrored Entergy’s complete-form submittal, its current LAR would satisfy the governing standard and permit a valid safety finding. Instead, by choosing an informal and incomplete route, Holtec has departed from the very precedent that defines the Palisades licensing basis. Alternatively, Holtec could achieve compliance by completing the long-overdue and safety-significant License Condition Table S-2 modifications—restoring full conformity with the NFPA-805 license condition established by Amendment 254 and closing a long-standing gap in Palisades’ fire-protection safety commitments.

REQUESTED RELIEF SUMMARY

Petitioners respectfully request that the Atomic Safety and Licensing Board:

- 1. Admit New Contentions Five, Six and Seven**, finding that Holtec’s September 23, 2025 LAR is procedurally and substantively incomplete under **10 C.F.R. §§ 50.48(c), 50.59, 50.90, and 50.92..**
- 2. Hold** that Holtec may not rely on prior enforcement discretion to defer NFPA-805 license-condition modifications without documented demonstration of “*substantial progress.*”
- 3. Conclude** that Holtec’s September 23, 2025 LAR fails to meet the procedural and substantive standards of §§ 50.48(c), 50.59, 50.90, and 50.92, because its indispensable omissions prevent the NRC from making the required findings of completeness, safety, and reasonable assurance.

CONCLUSION

Holtec's September 23, 2025 LAR departs from the form, structure, and completeness of the approved NFPA-805 licensing framework. By omitting required deterministic analyses, documentation, and attachments, Holtec has failed to meet the fundamental obligations of § 50.90 and § 50.92.

Until a complete, properly structured amendment is submitted and subjected to full NRC and public review, **the NRC cannot lawfully make a finding of reasonable assurance** of adequate protection of public health and safety.

Petitioners therefore request that the Board admit this Supplemental Petition in full and direct NRC Staff to withhold any further action on Holtec's current LAR pending submittal of a complete and compliant application.

===== End of Updated Executive Summary =====

ROADMAP AND STRUCTURE OF THIS SUPPLEMENTAL PETITION

This Supplemental Petition builds upon the September 7, 2025 Consolidated Petition and provides an expanded legal and factual record addressing Holtec's **September 23, 2025 License Amendment Request (LAR)** to defer multiple NFPA-805 Table S-2 modifications at the Palisades Nuclear Plant.

It establishes procedural grounds for admissibility, presents new factual analyses of the amended

LAR, and introduces three additional contentions (Contentions Five, Six and Seven) supported by detailed regulatory, technical, and enforcement history.

The structure below reflects the integrated organization of the full petition as filed.

1. Procedural Foundation and Jurisdiction

Explains why the Board has jurisdiction to admit this Supplemental Petition under **10 C.F.R. §§ 2.309(f) and/or 2.309(c)**.

Demonstrates that Holtec's September 23 filing constitutes a **new and materially different amendment** under § 50.90, thereby triggering petitioners' right to supplemental hearing requests and public notice.

Clarifies the procedural link between the original June 24 LAR, the September 23 replacement submittal, and the Federal Register notice.

2. Executive Summary

Provides an overview of the September 23 filing's expanded scope and its regulatory consequences.

Summarizes Holtec's key deficiencies—its failure to provide indispensable information required for NRC's findings under §§ **50.90 and 50.92**, its mischaracterization of license-condition obligations as scheduling items, and its reliance on unsupported PRA-based statements.

Highlights the introduction of Contentions Five, Six and Seven, and the corresponding relief requested.

3. Additional Scope Elements and Record Completion

Expands upon the September 23, 2025 LAR by identifying the additional systems, components, and modification groupings that Holtec referenced but did not fully evaluate in its technical analysis.

Provides a more complete description of each affected NFPA-805 Table S-2 modification so the Board can clearly understand the full operational and safety implications of each deferred item, emphasizing their direct significance to plant safety and public health rather than allowing them to be mischaracterized as merely “*administrative*.”

Ensures that every omitted or partially described modification is explicitly documented in the adjudicatory record, preventing any post-hoc supplementation or informal expansion of the licensing basis outside the docket.

4. Characterization of the September 23 Filing

Demonstrates that the September 23 submittal **replaces, not supplements**, the June 24 LAR.

Shows how Holtec expanded Table S-2 scope, introduced new modification groupings, altered compliance dates, and added forward-looking commitments—each satisfying the definition of a **new amendment request** requiring NRC notice and full § 50.90 evaluation.

5. Use of Non-Regulatory Terminology and Reframing of Obligations

Identifies Holtec’s introduction of phrases such as “*compliance modification*” and “*risk-reduction modification*,” which do not exist in 10 C.F.R. Part 50, Appendix R, or NFPA-805.

Explains how this language improperly reframes enforceable license-condition requirements as optional project activities, contradicting License Condition 2.C.(3)(c)2 and the intent of the 2015 and 2019 NRC NFPA-805 approvals (Amendments 254 and 269).

6. License Conditions Misrepresented as Schedules

Shows that Holtec characterizes binding **NFPA-805 Table S-2** commitments as discretionary “*implementation milestones*” and treats changes to them as merely “*administrative*.”

Clarifies that these are **deterministic safety modifications**, not scheduling commitments, and that Holtec’s September 23, 2025 filing fails to meet §§ **50.48(c), 50.59, and 50.90**.

7. Claimed Supply-Chain Delays and Special-Circumstances Defense

Analyzes Holtec’s reliance on “*supply-chain delays*” as justification for deferral.

Compares those claims to Holtec’s public filings and media statements, revealing inconsistencies that undermine any claim of “*supply chain issues*” as the sole cause of not making “*substantial progress*”.

8. Technical and Regulatory Scope of Affected Modifications

Summarizes each remaining NFPA-805 Table S-2 item and its role in post-fire safe-shutdown capability.

Shows how Holtec’s September 23 LAR expands the number of safety-related systems affected without providing deterministic DID and Margin evaluations or updated Attachments M, S-1, S-2, and W required by NRC NFPA-805 guidance (**ML16015A416**).

9. Dependence of Completed NFPA-805 Modifications on the AHSOP (Table S2-19)

Explains that Holtec’s deferral of Table S2-19—the independent 125-V DC power supply for the Auxiliary Hot Shutdown Panel (AHSOP)—eliminates the redundant power source required by Appendix R § III.L for alternate-shutdown capability. Without this independent DC train, the AHSOP becomes dependent on a single, fire-vulnerable bus, creating a single-train failure mode

in the only credited shutdown path. Because every other completed NFPA-805 Table S-2 modification, including the diesel-driven AFW pump, relies on an operable AHSOP for control and monitoring, those modifications cannot be credited for their safety function and are therefore all functionally moot.

10. Unsupported Defense-in-Depth and Safety-Margin Assertions

Critically evaluates Holtec's conclusory statements that defense-in-depth and safety margins remain unaffected.

Demonstrates the absence of quantitative or deterministic analysis required by **Regulatory Guide 1.205** and NFPA-805 § 2.2, and cites **Regulatory Guide 1.174** which confirms that *low risk significance alone does not demonstrate compliance.*

11. Missing Attachments and Incomplete Documentation

Traces the **required documentation trail** for NFPA-805 transition submittals (Attachments M, S-1, S-2, and W).

Shows that Holtec omitted or failed to update these attachments in its September 23 LAR, rendering the application **procedurally incomplete** under § 50.90 and preventing NRC from performing the required § 50.92 **reasonable-assurance finding**.

12. Demonstrating the Correct Path — Entergy's 50.90 Example, versus Holtec's Shortcut

Builds upon the historical record of Entergy's 2012 NFPA-805 application (ML12348A455) and NRC's 2015 approval (Amendment 254, ML15007A191) to illustrate the proper form and completeness required under 10 C.F.R. § 50.90. Entergy's submittals provided the full Transition

Report and Attachments M, S, and W, allowing NRC to make an informed safety finding and later revise the Table S-2 completion trigger through a complete, stand-alone LAR. By contrast, Holtec’s September 23, 2025 filing follows the structure of Entergy’s 2016 administrative correspondence rather than these approved § 50.90 amendments—omitting the deterministic, defense-in-depth, and § 50.59 analyses indispensable for NRC review under § 50.92. Had Holtec mirrored Entergy’s complete-form submittal, its current LAR would satisfy the governing standard and permit a valid safety finding. Alternatively, Holtec could achieve compliance by completing the long-overdue and safety-significant License Condition Table S-2 modifications, thereby restoring full conformity with the NFPA-805 licensing basis and closing the remaining fire-protection gaps.

13. Deterministic–Probabilistic Hierarchy

Explains why **Probabilistic Risk Assessment (PRA)** results, alone, cannot substitute for required deterministic demonstrations.

Draws from RG 1.174 (ML17317A256) and NRC’s 2019 RAI (ML19122A485) to emphasize that ***PRA must rest upon validated deterministic bases, reinforcing that Palisades’*** current September 23, 2025 LAR fails this standard.

14. Continued Non-Compliance with Enforcement-Discretion Standards

Links Holtec’s deferral request to the unresolved 2008–2009 NRC enforcement correspondence (ML083260577; ML091550665).

Explains that “*substantial progress*” toward completion was an explicit condition for maintaining

enforcement discretion, and Holtec’s September 23 LAR fails to provide any such showing—nullifying its claim of lawful continuation of compensatory measures.

15. Integrated Regulatory Roadmap – Dual Frameworks Still Binding

Clarifies that two regulatory frameworks remain operative:

- (1) the **Appendix R enforcement and exemption record** (1978 Order and 1996 Civil Penalty ML003705300), and
- (2) the **NFPA-805 transition licensing basis** formalized by Amendments 254 (2015), 265 (2018), and 269 (2019).

Holtec must therefore demonstrate compliance under both regimes, including valid compensatory measures and showing “*substantial progress*” in its filings.

16. RIS 2004-03 Enforcement Boundaries

Cites **RIS 2004-03 (Rev. 1)** to show the scope of NRC enforcement discretion for fire-induced circuit vulnerabilities and manual operator actions.

Demonstrates that Palisades’ current configuration exceeds those boundaries and thus requires renewed NRC review rather than continued reliance on expired enforcement policy and time extension with no provided documentation.

17. New Contention Five — Failure to Meet § 50.90 Completeness and Enforcement-Discretion Standards For Open Ended Future Relief

Alleges that Holtec’s September 23 filing is procedurally and substantively incomplete under § **50.90**, and fails to meet the “**substantial progress**” standard required to sustain prior enforcement discretion.

Asserts that Holtec's September 23, 2025 proposed future deferrals would convert binding **NFPA-805** obligations into open-ended future commitments, in violation of **10 C.F.R. §§ 50.48(c), 50.59, and 50.92**.

18. New Contention Six — S2-19 (AHSOP Independent DC Power), New Manual Operator Actions

Focuses on Holtec's proposed deferral of **Table S2-19**, the alternate DC power supply for the **Auxiliary Hot Shutdown Panel (AHSOP)**.

Demonstrates that this change eliminates the deterministically required independent DC power source, substitutes unverified manual operator actions, and omits both the **Appendix R § III.L analysis** and the **§ 50.59 evaluation** required under *NEI 96-07*. Deterministic **Appendix R** requirements cannot be removed or replaced based solely on probabilistic risk assessment (PRA) justification.

Concludes that this omission constitutes a substantive change to the licensing basis requiring prior NRC approval under **§ 50.90 or § 50.12**.

19. New Contention Seven — S2-37 (Turbine-Building Fresh-Air Fans / Habitability)

Contents that Holtec's deferral of **Table S2-37**—the modification ensuring fire-rated supports and power for the **Turbine-Building Fresh-Air Fan (V-210)**—removes the credited ventilation needed to maintain **operator habitability** and prevent smoke and heat spread during post-fire operations.

By substituting unverified manual or compensatory measures, Holtec changes the licensed method of maintaining safe-shutdown habitability, triggering **§ 50.59(c)(2)** review and requiring prior NRC approval under **§ 50.90**.

Demonstrates that this change eliminates the deterministically required ventilation capability, substitutes unverified manual operator actions, and omits both the **Appendix R § III.L analysis** and the **§ 50.59 evaluation** required under *NEI 96-07*. Deterministic **Appendix R** requirements cannot be removed or replaced based solely on probabilistic risk assessment (PRA) justification. The LAR provides no deterministic **Appendix R/NFPA-805** analysis or **§ 50.59 evaluation**, in violation of **§§ 50.90 and 50.92**, and undermines the **NFPA-805 license condition** requiring completion of the **Table S-2** modifications.

20. Standing and Continuing Interest

Re-affirms Joint Petitioners' standing under **§ 2.309(d)** given the enlarged safety and radiological risk area created by Holtec's expanded deferrals.

Petitioners' proximity, prior participation, and demonstrated expertise sustain standing as both individuals and a collective group.

21. Requested Relief

Summarizes the relief sought:

- Admit Contentions Five , Six and Seven;
- Confirm continuing validity of **Contentions One–Four** from the Consolidated Petition;
- Find that Holtec's September 23 LAR is procedurally incomplete and substantively deficient under **10 C.F.R. §§ 50.48(c), 50.59, 50.90, and 50.92**

=====End of Petition Roadmap=====

TABLE OF AUTHORITIES ADDITIONS, ADDED FOR THIS SUPPLEMENTAL PETITION

MATHEMATICAL AND LOGICAL LAWS SUPPORTING ADMISSIBILITY UNDER 10 C.F.R. § 2.309

1. Law of Distribution (Distributive Property of Multiplication over Addition)

Authority: Euclid, *Elements*, Book II, Prop. 1; Harold M. Edwards, *Elements of Algebra: Geometry, Numbers, Equations*(Springer, 2017).

Principle: For any values x, a, b, c , $x(a + b + c) = xa + xb + xc$. This foundational property of equality and substitution shows that once an original term is replaced, the resulting expression changes.

2. Law of Sets (Proper Superset Rule)

Authority: Georg Cantor, *Contributions to the Founding of the Theory of Transfinite Numbers* (Dover 1955); Paul R. Halmos, *Naive Set Theory* (Princeton Univ. Press 1960).

Principle: If one set S contains all elements of another set J and at least one additional element, $J \subset S$ and $S \neq J$. Formally, if $S = J + \Delta$ and $\Delta \neq \emptyset$, the sets are not equivalent.

3. Law of Boolean Logic (Non-Equivalence under Substitution)

Authority: George Boole, *An Investigation of the Laws of Thought* (1854); Claude E. Shannon, “A Symbolic Analysis of Relay and Switching Circuits,” *Trans. AIEE* Vol. 57 (1938) 713-723.

Principle: Substituting a non-equivalent variable changes the truth value of the entire proposition: if $A \neq B$, then for any subset X , $(A \wedge X) \neq (B \wedge X)$.

DOCTRINE OF MATERIAL ALTERATION

Authority: General administrative law principle recognized in federal agency practice and NRC procedural regulations under 10 C.F.R. §§ 2.309(f) and 2.309(c).

Principle: When the factual scope, analytical basis, or supporting evaluation of a filing is materially changed or replaced, the submission ceases to be the same application for purposes of notice, hearing, and procedural rights. A materially altered filing becomes the operative version of the application and must be evaluated as such for admissibility.

REGULATORY ISSUE SUMMARY 2004-03 (REVISION 1)

Risk-Informed Approach for Post-Fire Safe-Shutdown Circuit Inspections (December 29, 2004)
(ML042440791)

Explanation:

This Regulatory Issue Summary (RIS 2004-03, Rev. 1) provides the NRC’s bridging policy between enforcement under **10 C.F.R. § 50.48(b)** and the transition to **NFPA-805** for post-fire safe-shutdown circuits. It reaffirmed that licensees must identify and analyze “*hot short*,” “*open circuit*,” and “*short-to-ground*” failure modes for associated circuits that could prevent or cause maloperation of equipment required for post-fire safe shutdown. The **Holtec September 23, 2025 Supplemental LAR** introduces **Table S-2 items** that fall squarely, in whole or part, within this classification, identifying modifications previously treated in the Current Licensing Basis (CLB) as involving **hot-short analysis** under Appendix R. Accordingly, the RIS 2004-03 framework governs how such modifications must be evaluated, documented, and justified when applying a risk-informed approach during the NFPA-805 transition.

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS) FULL COMMITTEE MEETING – PALISADES NUCLEAR PLANT RESTART

U.S. Nuclear Regulatory Commission, October 3, 2024

NRC ADAMS Accession No. ML24319A182

Transcript and presentation slides of Holtec Palisades’ appearance before the ACRS Full Committee regarding restart readiness and NFPA-805 implementation status.

Key content: Holtec described the remaining “**SSC Reliability Improvement Modifications – NFPA 805 Modifications**” as necessary to “*assure full program compliance and reduced fire risk,*” listing breaker coordination, diesel-driven AFW pump, conduit seals, fire barriers, and valve-logic revisions.

REGULATIONS

- **10 C.F.R. § 26.205(d)** — *Fitness for Duty Programs: Work Hours.*

Establishes limits on the number of hours personnel may work to ensure fatigue management and safe operation of nuclear facilities. Basis for Holtec’s August 12, 2025 exemption request.

- **10 C.F.R. §§ 50.90 and 50.92** — *Amendment of Licenses and Evaluation Standards.*

Require that license amendment applications provide complete and indispensable information enabling NRC Staff to determine whether the amendment maintains adequate protection of public health and safety.

NRC AND LICENSEE FILINGS

- Holtec Decommissioning International, PNP 2025-061 (Aug. 12, 2025), “Request for Exemption from 10 C.F.R. § 26.205(d), Fitness for Duty Programs – Work Hours” (ADAMS Accession No. ML25224A206).

Holtec’s formal request seeking authorization for a 109-day extended-work period (Aug. 25–Dec. 12, 2025) to support continuous restart and outage activities at Palisades.

- NRC Request for Additional Information – Holtec Palisades, “Review of Exemption Request from Work-Hour Controls under 10 C.F.R. § 26.205(d)” (Oct. 3, 2025) (ADAMS Accession No. ML25280A014).

NRC correspondence identifying information deficiencies in Holtec’s exemption request and requesting clarification on fatigue-management measures and outage staffing plans.

STATE FILINGS AND RELATED PLEADINGS

- **Attorney General of the State of Michigan v. Holtec Palisades, LLC / Palisades Energy, LLC** – *Petition for Leave to Intervene and Request for Hearing* (ML21055A888, filed March 17, 2021).

Cited for: statement that under NRC rules, the applicant or proponent of an order bears the burden of proof, and that petitioners need only raise a genuine dispute on a material fact to meet § 2.309 admissibility requirements; quoting NRC Chair Christopher T.

Hanson’s Indian Point dissent emphasizing that admissibility does not reach the merits of the dispute.

ATOMIC SAFETY AND LICENSING BOARD AND COMMISSION DECISIONS

- Entergy Nuclear Operations, Inc., Entergy Nuclear Palisades, LLC, Holtec International, and Holtec Decommissioning International, LLC – *Atomic Safety and Licensing Board Memorandum and Order, LBP-22-08***(July 12, 2022) (ML22196A108).
Cited for: admitting the Michigan Attorney General’s single contention challenging Holtec’s financial-assurance showing; holding that a contention is admissible when an application omits information indispensable for the NRC to make required findings under 10 C.F.R. § 50.33(k); reaffirming that the absence of required supporting information creates a genuine dispute of material fact within the meaning of 10 C.F.R. § 2.309(f)(1), citing *Florida Power & Light Co. (Turkey Point), CLI-01-17, 54 NRC 3 (2001)*; *Vermont Yankee Nuclear Power Corp., LBP-07-15, 66 NRC 261 (2007)*; *Dominion Nuclear Connecticut (Millstone), CLI-04-36, 60 NRC 631 (2004)*; and *Private Fuel Storage, LBP-98-7, 47 NRC 142 (1998)*.

TECHNICAL STANDARDS AND NRC FIRE-PROTECTION METHODOLOGIES

IEEE Standard 383 (1974)

Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations (Institute of Electrical and Electronics Engineers, 1974).

Cited for: establishing qualification and flame-retardant testing criteria for safety-related

electrical cables in nuclear plants. The NRC’s 1978 Palisades Safety Evaluation (ML020800287) states that Palisades’ installed cables predated this standard and therefore were not IEEE 383 qualified.

IPCEA Standard S-19-81 (1964)

Thermoplastic-Insulated Wires and Cables for the Transmission and Distribution of Electrical Energy (Insulated Power Cable Engineers Association, 1964).

Cited for: governing vertical-flame testing of early-generation PVC thermoplastic cables. The NRC’s 1978 Safety Evaluation for Amendment No. 42 confirms that Palisades’ cabling was qualified only to this standard and was considered “combustible material.”

NUREG/CR-6850 (EPRI 1011989)

EPRI/NRC-RES Fire PRA Methodology for Nuclear Power Facilities (Volumes 1 and 2, September 2005).

Cited for: the NRC-endorsed methodology establishing ignition thresholds, cable damage temperatures, and propagation assumptions for thermoplastic cables. Incorporated into the Palisades Current Licensing Basis (CLB) under 10 C.F.R. § 50.48(c) by NRC Amendment No. 269, “Palisades Nuclear Plant – Issuance of Amendment No. 269 Regarding Changes to NFPA 805 Modifications and Change to Full Compliance Implementation Date for the Fire Protection Program” (ML19198A080).

NUREG/CR-6850, Supplement 1 (EPRI 1023259)

Fire Probabilistic Risk Assessment Methods Enhancements (September 2010).

Cited for: updating and refining the fire-PRA methods in NUREG/CR-6850, including treatment

of circuit failure probabilities, human reliability, and heat-flux correlation data used in NFPA-805 transitions.

NFPA Standard 805 (2001 Edition)

Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants (National Fire Protection Association, 2001).

Cited for: establishing the performance-based fire-protection standard incorporated by reference in 10 C.F.R. § 50.48(c); governs Palisades' current fire-protection licensing condition.

**KEY ARGUMENTS ADDRESSING THE REVISED HOLTEC
LICENSE AMENDMENT REQUEST AND REPLACEMENT
TECHNICAL ATTACHMENT**

**INTRODUCTORY NOTE; SCOPE OF ARGUMENTS IN THIS SUPPLEMENTAL
PETITION**

This Supplemental Petition presents new arguments arising solely from Holtec's September 23, 2025 License Amendment Request (LAR)—specifically addressing the expanded scope, revised technical bases, and newly introduced replacement enclosure contained in that filing. These arguments originate exclusively from Holtec's own subsequent actions, not from Joint Petitioners. They do not constitute new arguments related to Holtec's June 24, 2025 LAR, which was fully addressed in the Joint Petitioners' September 7, 2025 Consolidated Petition.

Accordingly, these arguments do not create new claims, substitute for, replace, or withdraw any arguments previously raised in response to the June Holtec LAR or the Joint Petitioners' September Consolidated Petition. Rather, they build upon and extend those prior filings to

address the new and materially different information first introduced in Holtec's September 23 submission, which explicitly replaces in full the technical attachment and analytical scope of the June filing.

Because the September filing now constitutes the **operative license amendment request** before the Board, the following arguments, in this filing, respond exclusively to that version and to the newly introduced bases, categories, and terminology it contains. These arguments are properly within the scope of the existing proceeding under 10 C.F.R. § 2.309(f), as they address only the **replacement, September 23, 2015 Holtec LAR**, that defines the current licensing action, scope and technical evaluation.

1. HOLTEC'S SEPTEMBER 23, 2025 FILING CONSTITUTES A NEW AND INDEPENDENT LICENSE AMENDMENT REQUEST (LAR)

Holtec's September 23, 2025 submittal, which states that it "*replaces the Enclosure and attachments*" of the June 24, 2025 filing, constitutes a full replacement—not a supplement.

The September LAR expands the scope from two to five NFPA-805 Table S-2 items, introduces new factual bases ("*supply-chain constraints*," "*risk-reduction*"), and modifies the defense-in-depth (DID) analysis.

Under 10 C.F.R. § 2.309(f), this replacement renders the September 23 filing the **operative and controlling application**, requiring all contentions to be evaluated against it.

2. APPLICATION OF THE DOCTRINE OF MATERIAL ALTERATION TO ESTABLISH SUBSTITUTION

Under established administrative principles, when a licensee replaces the analytical and technical core of a filing, the later version supersedes the prior submission.

This supplemental petition applies the **Doctrine of Material Alteration** to demonstrate that Holtec’s September 23 filing is a materially changed and controlling application under §§ 2.309(f) or 2.309(c)

Accordingly, Petitioners’ prior and current filings together constitute a single, continuous, and timely challenge to the operative Holtec LAR.

3. Mathematical and Logical Proofs Reinforcing Non-Equivalence of the Two LARs

Joint Petitioners introduce new analytical frameworks—the **Law of Sets**, **Distributive Property**, and **Boolean Logic**—to demonstrate that the June 24 and September 23 filings are not equivalent.

These objective demonstrations show that replacing Enclosure A with Enclosure B changes the fundamental relationships among all five NFPA-805 Table S-2 items, proving that the September 23 LAR cannot be treated as a “*supplement*.”

4. TWO PROCEDURAL PATHWAYS FOR ADMISSIBILITY UNDER 10 C.F.R. § 2.309

The Supplemental Petition introduces three complementary procedural bases for admission:

- **Primary:** § 2.309(f) — Treat the September 23 LAR as a replacement within the open proceeding; Petitioners’ contentions remain timely.
- **Alternative:** § 2.309(c) — If considered a supplement, Petitioners show “good cause” based on new, materially different information first available on September 23.

5. SUFFICIENCY OF PETITIONERS' FILINGS IF SUBSTITUTION IS ACCEPTED

If the Board accepts the substitution argument, Petitioners confirm that the **September 7 Consolidated Petition** and this **Supplemental Petition** together constitute their full § 2.309(f) filing addressing the operative Holtec LAR applications, in whole.

No new petition will be filed, and subsequent filings will be limited to the Board-authorized Reply.

6. HOLTEC'S EXPANSION OF THE NFPA-805 SCOPE TRANSFORMS THE LICENSING ACTION

The Holtec September 23 LAR adds three new NFPA-805 Table S-2 items (S2-19, S2-23, S2-37) and introduces new analytical bases, converting a limited schedule change into a materially new licensing action.

The addition of the new "*Compliance*" and "*Risk-Reduction*" designations to all five **Table S-2** modification categories has no regulatory basis and alters the technical scope of the amendment, thereby requiring independent NRC findings under **10 C.F.R. § 50.90**.

7. PROCEDURAL CONSEQUENCES OF HOLTEC'S REPLACEMENT FILING

Because Holtec withdrew and replaced the operative technical enclosure, the June 24 submittal no longer has regulatory effect.

Accordingly, the NRC and the Board must base all evaluations, reviews, and hearings solely on the Holtec September 23 version.

The Board's jurisdiction continues under the same docket and notice, preserving the Petitioners' rights without requiring a new filing.

8. HOLTEC’S USE OF NON-REGULATORY TERMINOLOGY LACKS LEGAL FOUNDATION

Holtec’s introduction of undefined categories—“*Compliance Modifications*” and “*Risk-Reduction Modifications*”—creates new non-regulatory terms that have no basis in 10 C.F.R. § 50.48, NFPA-805, or NRC guidance.

This reclassification changes the regulatory structure of Table S-2 obligations without formal rulemaking or a license amendment supported by technical justification.

9. INCOMPLETE AND UNSUPPORTED DEFENSE-IN-DEPTH (DID) ASSERTION

Although the September 23 filing expands its DID discussion, it remains conclusory and unsupported by deterministic or quantitative analysis.

The absence of updated Attachments M, S, or W or any documented safety-margin evaluation violates NRC guidance (ML16015A416) and § 50.90 completeness requirements.

10. HOLTEC’S CLAIMED “SUPPLY-CHAIN CONSTRAINTS” AND “PROJECT-PLANNING ADJUSTMENTS” ARE NOT A LEGAL BASIS FOR § 50.90 RELIEF

The Supplemental Petition introduces evidence that Holtec’s own public statements contradict its claims of supply-chain delays, undermining its justification for deferral.

These economic or planning challenges do not constitute technical or safety bases under § 50.90 or the NRC’s NFPA-805 enforcement policy.

11. HOLTEC’S DEFERRAL STRATEGY CREATES INDEFINITE AND CONTINGENT OUTCOMES

The Holtec September 23 LAR introduces new language suggesting that additional modifications “*may be addressed through future LARs.*”

This creates open-ended and contingent obligations that violate the § 50.90 requirement to “fully describe” the change and demonstrate a defined end-state.

Petitioners therefore add **Contention Five**: the application fails the “*substantial progress*” and completeness standards and seeks NRC approval for indefinite outcomes.

12. Deferral of S2-19 Nullifies Operability of Completed NFPA-805 Modifications

Holtec’s deferral of **Table S2-19**, which provides the **independent 125-V DC power source for the Auxiliary Hot Shutdown Panel (AHSOP)**, renders all previously completed NFPA-805 modifications—including the new diesel-driven AFW pump—**functionally inoperative** for their credited purpose.

The AHSOP is the controlling station for alternate-shutdown actions under **Appendix R § III.L**; without its redundant DC supply, operators cannot power, monitor, or control AFW flow, SG PORVs, or pressurizer functions.

This dependency converts Holtec’s “deferral” into a substantive change in the **method of performing and controlling** the licensed shutdown function, requiring a full §§ 50.59 and 50.90 evaluation rather than administrative treatment.

13. DEFERRAL OF S2-37 COMPROMISES HABITABILITY AND NULLIFIES ALTERNATE SHUTDOWN CAPABILITY

Holtec’s deferral of **Table S2-37**, which provides the turbine-building fresh-air fan and associated ventilation and habitability controls, directly compromises the environmental conditions necessary for operators to safely perform alternate-shutdown actions from the **Auxiliary Hot Shutdown Panel (AHSOP)**.

The S2-37 modification ensures that ventilation, temperature control, and smoke isolation remain functional during post-fire conditions, maintaining operator survivability and preventing secondary fire propagation through ventilation ducts. Without this capability, operators cannot access or remain at the AHSOP to execute required Appendix R § III.L actions, rendering the alternate-shutdown path non-functional.

This dependency makes Holtec’s claimed “administrative” deferral a substantive change to the plant’s licensed safe-shutdown method. It therefore requires a complete §§ 50.59 and 50.90 evaluation and cannot be treated as an implementation-scheduling issue.

14. CONTINUED ABSENCE OF DETERMINISTIC EVALUATION AND UPDATED ATTACHMENTS

Holtec’s new filing still omits the deterministic analyses, FSAR update references, and DID documentation required under NUREG-0737, NFPA-805, and NRC guidance.

Petitioners reaffirm that PRA-only statements—such as “risk remains low”—cannot substitute for deterministic demonstrations of safety and margin.

15. DETERMINISTIC–PROBABILISTIC HIERARCHY

Holtec cannot substitute PRA summaries alone, for the deterministic analyses and Defense in Depth, DID/safety-margin demonstrations that define the licensing basis; § 50.90 demands the full deterministic foundation before PRA insights are considered.

16. THE SUPPLEMENTAL LAR FAILS § 50.90 AND “SUBSTANTIAL PROGRESS” BECAUSE IT SEEKS INDEFINITE, CONTINGENT OUTCOMES AND DEFERS CORE OBLIGATIONS TO A FUTURE LAR

Holtec’s “*we may complete or defer/delete later*” approach contradicts the license condition requiring full implementation of the **Table S-2** commitments and cannot be construed as a change meeting the license condition’s “**no prior approval**” criteria. Such open-ended and conditional outcomes fail to satisfy both the § **50.90** completeness requirement and the ongoing “**substantial progress**” standard that governs continued enforcement discretion.

17. FAILURE TO PROVIDE DETERMINISTIC AND § 50.59 OPERATOR-ACTION EVALUATIONS FOR S2-19 (AHSOP INDEPENDENT DC POWER)

Holtec’s deferral of S2-19 eliminates the AHSOP’s independent DC power source required by Appendix R for alternate-shutdown capability and substitutes unverified manual operator actions without performing the required deterministic or § 50.59 evaluations. This change alters the credited method of safe shutdown, reduces defense-in-depth and safety margin, and fails to meet the completeness requirements of §§ 50.90 and 50.92.

18. FAILURE TO PROVIDE DETERMINISTIC AND § 50.59 EVALUATIONS FOR S2-37 (TURBINE-BUILDING VENTILATION AND HABITABILITY CONTROL)

Holtec’s deferral of **S2-37** eliminates the deterministically required ventilation and habitability controls needed to maintain safe environmental conditions for operators performing alternate-

shutdown actions at the **Auxiliary Hot Shutdown Panel (AHSOP)**. The deferral substitutes unverified manual compensatory measures without providing the required **Appendix R § III.L** or **§ 50.59** evaluations. This change alters the credited method of achieving and maintaining safe shutdown, compromises operator survivability, and reduces defense-in-depth and safety margin, thereby failing to meet the completeness requirements of **§§ 50.90 and 50.92**.

18. Failure to Provide Indispensable Information Required Under 10 C.F.R. §§ 50.90 and 50.92

Holtec’s filings cite “*supply-chain challenges*” as the reason for deferring completion of NFPA-805 fire-protection modifications while simultaneously seeking a **109-day work-hours exemption** (ML25224A206; ML25280A014) to support continuous restart activities—demonstrating that adequate manpower and material flow existed when prioritized.

Despite this demonstrated capacity, Holtec has submitted **no supplemental information** showing how these same resources were applied to the deferred fire-protection scope or why the cited constraints would uniquely affect that work.

This omission leaves NRC Staff without the **indispensable information required by § 50.90** to perform the evaluation mandated by **§ 50.92** and determine whether the licensee has achieved “*substantial progress*.”

19. INCONSISTENT ACRS AND LAR REPRESENTATIONS AND REGULATORY

“SUBSTANTIAL PROGRESS” BASELINE

Issue:

Holtec’s September 23, 2025 Supplemental License Amendment Request (LAR)

(ML25274A074) fails to meet the completeness and accuracy requirements of 10 C.F.R. §§ 50.9

and 50.90 due to its direct inconsistency with Holtec’s definitive October 2024 ACRS statements regarding completion of NFPA-805 modifications and failure to update those statements.

Argument Summary:

At the **October 3, 2024 ACRS Full Committee meeting** (ML24319A182), Holtec made definitive representations, under oath, that Palisades would complete all remaining **NFPA-805 license-condition modifications** prior to restart, describing these as the final actions necessary for “*full NFPA-805 implementation*,” “*full program compliance*,” and “*reduced fire risk*.” These statements were presented as factual evidence of **substantial progress** toward fulfilling the NFPA-805 license condition. For the following year, the NRC was repeatedly assured that “*substantial progress*” had been achieved and that **all required modifications would be completed** before restart.

Now, in its **September 23, 2025 License Amendment Request (LAR)**, Holtec reverses these prior commitments—reclassifying the same modifications as “*administrative*,” “*minimal-risk*,” or deferrable items. No updated documentation of progress or revised implementation schedule was provided. This inconsistency leaves the NRC without an accurate or current record of the plant’s compliance status and prevents the Commission from making the findings required under **10 C.F.R. §§ 50.90 and 50.92**.

20. FAILURE TO DEMONSTRATE “SUBSTANTIAL PROGRESS” UNDER NRC’S PALISADES STANDARD

Holtec’s *September 23, 2025 License Amendment Request (LAR)* fails to satisfy the NRC’s established **Palisades-specific standard** for demonstrating “substantial progress” in the NFPA-805 transition. The NRC’s *June 20, 2009* letter (ML091550665) required Entergy to

maintain and periodically update a **Palisades NFPA-805 Project Milestones Table**, conduct monthly progress calls, and provide dated task-status documentation as the evidentiary basis for continued **enforcement discretion**. From 2018 through *September 23, 2025*, the NRC was assured by Holtec that all **Table S-2** modifications would be completed as the basis for demonstrating “substantial progress.”

Holtec’s current filing provides none of these required elements—no milestone table, no progress summaries, and no NRC-validated status updates—relying instead on inference that “only five items remain.” Under the established **Palisades precedent**, inference cannot substitute for the affirmative, documented demonstration of progress required by NRC Staff. Consequently, Holtec’s LAR is **incomplete under 10 C.F.R. § 50.90** and cannot support the continuation of enforcement discretion.

21. SUBSTITUTION OF “ADMINISTRATIVE” FOR “REASONABLE ASSURANCE”

Holtec’s September 23, 2025 LAR improperly replaces the NRC’s required “**reasonable assurance**” finding—established under **10 C.F.R. § 50.92(a)** and the 2015 NFPA-805 Safety Evaluation Report, SER—with an unsupported claim that its deferrals are merely “*administrative*.” The 2015 SER found reasonable assurance based **only upon completion of Table S-2 modifications** by a date certain. By omitting updated defense-in-depth and safety-margin analyses, Holtec has removed the factual basis for that finding. Without this indispensable information required by **§ 50.90**, the NRC cannot lawfully reaffirm reasonable assurance for the deferred configuration.

22. ENTERGY’S NFPA-805 LICENSE AMENDMENTS ESTABLISH THE REQUIRED “FORM OF THE ORIGINAL” STANDARD FOR § 50.90

Entergy’s 2012 and 2018 NFPA-805 License Amendment Requests (ML12348A455; ML18305B321) define the governing model for Palisades under 10 C.F.R. § 50.90—each submitted “*in the same form and level of detail as the original submission,*” with complete deterministic, defense-in-depth, and § 50.59 analyses. These filings enabled NRC’s 2015 and 2019 approvals (Amendments 254 and 269) and serve as the regulatory baseline for any future changes to the fire-protection license condition. By contrast, Holtec’s September 23, 2025 filing follows the structure of Entergy’s 2016 administrative correspondence rather than these approved § 50.90 amendments, omitting indispensable technical and regulatory detail. Holtec can correct this flaw by resubmitting its LAR in the full Entergy format—or by completing the long-deferred Table S-2 modifications to satisfy the existing NFPA-805 license condition.

ANNUNCIATION OF PRO SE STATUS AND REQUEST FOR REASONABLE DEFERENCE IN PRESENTATION

PRO SE REPRESENTATION

Joint Petitioners’ representative appears in this proceeding **pro se**, without the benefit of legal counsel. The Commission and its Licensing Boards have long recognized that participants who appear on their own behalf are entitled to have their pleadings liberally construed and their filings considered in substance rather than form, so long as they make a good-faith effort to meet the procedural rules.

Petitioner respectfully requests that the Board afford reasonable deference not to the substance of the § 2.309 admissibility standards—which remain fully applicable—but to the **manner and form** of this presentation. As a non-lawyer, Petitioner communicates in plain language and structured analysis to ensure technical accuracy.

HOLTEC’S ACTIONS ALONE, BRING ON MORE COMPLEXITY

As a direct result of Holtec’s September 23, 2025 submission, this adjudication has shifted toward substantially greater procedural and technical complexity—particularly regarding the admissibility requirements and newly raised contentions now before the Board. **This expansion of scope was not of Joint Petitioners’ making**, yet it has transformed the proceeding from what was initially a straightforward review of a limited License Amendment Request into a multi-layered evaluation involving new filings, regulatory interpretations, and interdependent license-basis issues. Petitioners therefore respectfully request that the Board acknowledge this changed context and extend a reasonable measure of consideration appropriate to pro se participants navigating an increasingly intricate and evolving record.

SUBSTANCE GOVERNS OVER FORM

The purpose of this annunciation is not to seek exemption from compliance, but to assure that the Board considers the **intent and substance** of each contention and supporting statement, even where the format or expression differs from that used by trained counsel. The Commission’s own practice has consistently emphasized that substance governs over form where a member of the public makes a diligent, good-faith effort to articulate safety, compliance, or procedural concerns within the meaning of 10 C.F.R. § 2.309.

ATTORNEY GENERAL OF THE STATE OF MICHIGAN V. HOLTEC PALISADES LLC

This request for fair consideration aligns with the principle argued by the **Michigan Attorney General** in *Attorney General of the State of Michigan v. Holtec Palisades LLC* (50-155-LT-2, ML21055A888), which stated:

“Also, as noted earlier, NRC rules of practice and procedure provide that the ‘applicant or the proponent of an order has the burden of proof.’ A petitioner need only present a disputed material question of fact for hearing and can challenge the level of detail provided by the Applicant in demonstrating this disputed material question of fact. As NRC Chair Christopher T. Hanson, then Commissioner Christopher T. Hanson, explained in his dissent on the license transfer case dealing with Indian Point, ‘[e]ven though cost estimates are uncertain by nature, we are obligated to acknowledge claims from interested persons that call these estimates into question’ and ‘[o]ur contention admissibility requirements are not intended to reach the merits of the dispute, but merely to assure that a genuine dispute on a material fact within the scope of the proceeding exists.’”

The Atomic Safety and Licensing Board subsequently admitted the Michigan Attorney General’s contention, affirming that the filing met the NRC’s contention admissibility standards.

This citation from the Michigan Attorney General underscores that the role of petitioners—particularly those appearing pro se—is to **identify genuine disputes on material facts, not to resolve them**. It supports the principle that filings such as Joint Petitioners’, in this case, should be judged by whether they raise valid, good-faith disputes within scope—not by the sophistication of their legal drafting.

Accordingly, Petitioner asks that the Board evaluate this filing with that established spirit of fairness, ensuring that the issues presented are judged by their factual and regulatory relevance rather than by stylistic conformity or legal drafting convention.

SUMMARY OF KEY SUBMITTALS AND PROCEDURAL MILESTONES AND FACTUAL DIFFERENCES

THE SUBMITTALS

June 24, 2025 – Holtec Palisades LLC License Amendment Request (LAR)

(ADAMS Accession No. ML25175A275)

Holtec Palisades LLC submitted a License Amendment Request (LAR) seeking to amend the Palisades Nuclear Plant’s NFPA-805 transition license condition to extend completion dates for two Table S-2 items:

- **S2-13** – Component Cooling Water valve modification
- **S2-15** – Reactor Head/Pressurizer Head Vent Valves (implementing NUREG-0737 Item II.B.1)

The submittal proposed to revise the license condition text to defer these modifications one additional operating cycle, citing “*schedule optimization*” and “*resource management*” as justification, but provided no updated Attachments M, S, or W, no deterministic evaluation, and no defense-in-depth (DID) or safety-margin discussion.

September 7, 2025 – Joint Petitioners’ Consolidated Petition

(ADAMS Accession No. ML25250A001)

The Joint Petitioners filed a consolidated § 2.309 petition challenging Holtec’s June LAR for failure to meet § 50.90 completeness and enforcement-policy requirements. The filing advanced four contentions supported by NRC licensing documents and precedent demonstrating the continued applicability of Appendix R, NUREG-0737, and NFPA-805 license-condition obligations.

September 23, 2025 – Holtec “Supplemental” LAR

(ADAMS Accession No. ML25274A074)

Holtec transmitted what it termed a “*supplemental*” submittal but expressly stated in the cover letter:

“This submittal replaces the Enclosure and attachments in Holtec Palisades letter PNP 2025-040, dated June 24, 2025.”

The filing expanded the scope of requested relief from two to five NFPA-805 Table S-2 items (adding S2-19, S2-23, and S2-37) and introduced new, non-regulatory classifications—“*Compliance Modifications*” and “*Risk-Reduction Modifications*.” It asserted that Defense-in-Depth (DID) remained adequate but relied solely on a broad, conclusory statement, without supporting analysis. The filing attributed schedule delays solely to “*supply-chain constraints*” and “*project-planning adjustments*,” replacing earlier justifications of “*schedule optimization*” and “*resource management*,” (with no explanation of these terms) while deferring final resolution to unspecified future LARs intended to delete portions of the Table S-2 license condition. No updated Attachments M, S, or W accompanied the submittal, nor did it include any quantitative risk assessment or deterministic evaluation.

November 1, 2025 – Joint Petitioners’ Supplemental Petition (This Filing)

This Supplemental Petition responds to Holtec’s September 23 submittal, incorporates its newly expanded scope, reaffirms the original four contentions, and adds three new contentions—Contention Five, Contention Six, and Contention Seven. Contention Five asserts that the September 23 LAR is procedurally and substantively incomplete under § 50.90 because it replaces—rather than merely supplements—the prior application without providing the

mandatory supporting analyses and documentation. Contention Six addresses Holtec’s deferral of Table S2-19 (Auxiliary Hot Shutdown Panel independent DC power), and Contention Seven addresses the deferral of Table S2-37 (Turbine Building fresh-air fan and habitability controls), each demonstrating that the proposed changes remove deterministically required safety functions and therefore constitute substantive licensing-basis changes requiring prior NRC approval..

FACTUAL DIFFERENCES BETWEEN HOLTEC’S JUNE 24 AND SEPTEMBER 23

2025 SUBMITTALS

(All differences derived directly from Holtec’s docketed correspondence; phrased neutrally for use under § 2.309(f))

Topic	June 24 2025 Submittal (ML25175A275)	September 23 2025 Submittal (ML25274A074)
Scope of License-Condition Items	Identified two NFPA-805 Table S-2 items — S2-13 and S2-15.	Identified five items — S2-13, S2-15, S2-19, S2-23, and S2-37.
Enclosure: Evaluation of the Proposed Change	Includes enclosure, to provide Evaluation of the Proposed Change	States: “This submittal replaces the Enclosure and attachments in Holtec Palisades letter PNP 2025-040, dated June 24, 2025”
Purpose Description	“Revise two license-condition sections to extend the full-compliance date from the fourth to the fifth operating cycle.”	“Revise and replace Enclosure 1 to provide updated information and include revisions to five Table S-2 items ... reflecting ongoing project-planning and supply-chain challenges.”
Justification Basis	“ <i>schedule optimization</i> ” and “ <i>resource management</i> ”	Adds new factual bases: “ <i>supply-chain constraints</i> ,” “ <i>material availability</i> ,” and “ <i>project planning adjustments</i> .” Provide no information for NRC staff to evaluate these terms
Terminology Introduced	None beyond standard NFPA-805 language.	Introduces new terms “ <i>Compliance Modifications</i> ” and “ <i>Risk-Reduction Modifications</i> .”

Attachments Referenced	No new versions of Attachment M, S, or W referenced.	Mentions updates to five Table S-2 items but provides no updated Attachments M/S/W.
Defense-in-Depth / Safety-Margin Discussion	Not discussed.	States that “ <i>additional details are provided to describe the compliance strategy for each modification,</i> ” but provides no explicit DID or safety-margin evaluation.
Technical Content Added	None beyond identifying the two modifications.	Adds individual narrative summaries for S2-19, S2-23, and S2-37 not present in June filing.
Regulatory Framing	Described as “ <i>an extension of the full-compliance date.</i> ”	Described as both “ <i>continuation of compliance</i> ” and “ <i>risk-reduction strategy</i> ” within ongoing NFPA-805 implementation.
Commitments / Future Actions	None stated.	Introduces expectation of a “ <i>future LAR</i> ” for final resolution of deferred modifications.

APPLICATION OF SET THEORY AND ASSOCIATIVE MATH THEORY IN SUPPORT OF THE LAW OF ADMISSIBILITY (§ 2.309)

The factual differences summarized in the preceding table can be expressed through a combined framework of **set theory** and the **associative law of mathematics**, both of which illustrate how Holtec’s September 23, 2025 submittal fundamentally alters—not supplements—the June 24, 2025 License Amendment Request (LAR).

Together, these analytical models provide an objective and logically neutral basis for concluding that Holtec’s September 23, 2025 filing is not equivalent to its June 24, 2025 submittal and therefore constitutes a new application within the meaning of 10 C.F.R. § 2.309.

Set Theory Analysis

In set-theory terms, each License Amendment Request (LAR) can be represented as a set composed of its defining elements:

{Enclosure, Technical Evaluation, Table S-2 items, factual bases, terminology, and commitments}.

June 24, 2025 Set (J):

{Enclosure = A, Technical Evaluation = E_1 , Items = {S2-13, S2-15}, Basis = “schedule optimization,” Terminology = standard NFPA-805, Commitments = none}.

September 23, 2025 Set (S):

{Enclosure = B, Technical Evaluation = E_2 , Items = {S2-13, S2-15, S2-19, S2-23, S2-37}, Basis = “supply-chain constraints,” “risk-reduction,” “project-planning adjustments,” Terminology = new classifications (“compliance” / “risk-reduction”), Commitments = future LAR}.

1. Expansion of the Set (Proper Superset)

The September 23 set adds three new Table S-2 elements (S2-19, S2-23, and S2-37) and multiple new factual and descriptive components.

Formally, $J \subset S$, because the June set is contained within—but not equal to—the September 23 set.

Under set theory, when $\Delta \neq \emptyset$ (a non-empty difference exists), the sets cannot be equal:

$$S = J + \Delta \rightarrow S \neq J.$$

This reflects a *material alteration* in both the composition and scope of the application, rather than a supplementation.

2. Transformation of Common Elements

Even the two shared elements, S2-13 and S2-15, are not identical across sets because they are now linked to a different Enclosure ($A \rightarrow B$) and a revised Technical Evaluation ($E_1 \rightarrow E_2$).

In mathematical terms:

S2-13(A, E₁) $\neq$ S2-13(B, E₂) and S2-15(A, E₁) $\neq$ S2-15(B, E₂).

A change in either defining parameter—the enclosure or evaluation—creates a new ordered pair and, therefore, a new element within the set.

This transformation alters the functional meaning of each shared item, confirming that the September 23 filing is not a continuation but a replacement of prior content.

3. Associative Law Analysis (Substitution and Equivalence)

Under the **associative law of mathematics**, the result of an operation remains the same only when the grouping of terms does not affect the outcome.

Applying this principle to the NRC licensing process:

If.

[(June LAR + Supplement) = Holtec's claim of continuity],

then, by associative law, the grouping **(June + Supplement)** must yield the same outcome as a single unified “Application.”

However, Holtec's September 23 filing **replaces**—rather than groups with—the June 24 submittal. The actual relationship is therefore:

(June LAR replaced by September23 LAR) $\neq$ (June LAR + Supplement).

Re-grouping the elements changes the result, proving the relationship to be **non-associative**.

Consequently, the September 23 LAR cannot be mathematically or procedurally treated as a supplement to the June filing; it stands as an independent and substantively distinct application.

Conclusion

Because (1) the September 23 set introduces new members, (2) the common members have been transformed through substitution of their technical evaluation and supporting documentation, and (3) the associative property fails when the two filings are regrouped, the June and September 23 submittals share no element of complete equivalence.

Accordingly, the September 23, 2025 submission is not a supplement or continuation of the June 24, 2025 LAR but a **new and independent application**, as demonstrated by both logical principle and the procedural standards of **10 C.F.R. § 2.309**.

APPLICATION OF THE DOCTRINE OF MATERIAL ALTERATION IN SUPPORT OF THE LAW OF ADMISSIBILITY (§ 2.309)

Based on the factual differences shown in the preceding table—and as demonstrated through the **Law of Distribution** and the **Law of Sets**—the record now satisfies the conditions for applying the **Doctrine of Material Alteration** in support of the **two admissibility provisions that govern this proceeding: 10 C.F.R. § 2.309(f) and/or alternative showings under §§ 2.309(c)**.

Under established principles of administrative procedure, when an applicant replaces the technical and analytical core of a filing, that later submittal becomes the *controlling version* of the application for purposes of agency review, notice, and hearing.

This principle operates as a form of **substitution**, by which the revised filing automatically supersedes the earlier version.

Accordingly, **substitution applies under 10 C.F.R. § 2.309(f)**—and, as an alternate, under § **2.309(c)**—to ensure that Joint Petitioners’ contentions address the operative and controlling License Amendment Request now before the NRC.

Doctrine of Material Alteration

1. Expansion of Scope Constituting a Material Change.

Holtec’s September 23, 2025 filing expands the scope of its license amendment request from two to five NFPA-805 Table S-2 items, introduces new analytical bases such as “*supply-chain constraints*” and “*risk-reduction strategies*,” and adds commitments for a future, new LAR amendment.

These are not clerical or explanatory additions; they are new factual elements and technical evaluations that change what the NRC must evaluate and decide.

Under the ordinary meaning of a *material change*, an applicant who expands the scope of a proposal and adds new underlying bases has altered the subject matter before the agency.

Such an alteration makes the later filing the active version of the application for all purposes of public review and adjudication.

2. Transformation of Common Elements.

Even when two versions of a filing address overlapping issues, they are not equivalent if the new technical evaluation alters the underlying safety basis for all five Table S-2 modifications.

Holtec’s September 23 submittal replaced the original June 24 Enclosure and Technical Evaluation with a new Enclosure and revised analysis that not only restate the justifications for

the previously included items (S2-13 and S2-15) using different technical premises and risk characterizations, but also apply those new evaluation methods to the added Table S-2 modifications (S2-19, S2-23, and S2-37), thereby expanding and redefining the scope and analysis of the licensing action.

When the reasoning, data, and supporting analysis are replaced, the previous version no longer represents the applicant’s current position.

In procedural terms, this transforms the earlier information into superseded material, and the replacement filing becomes the only valid reference for evaluating compliance and admissibility.

Conclusion

Because (1) the September 23 submittal adds new information and analytical bases that expands the scope of the licensing action, and (2) even the previously common elements have been rewritten under a new technical evaluation, the filing represents a **material alteration** rather than a supplement.

Under the procedural standards of **10 C.F.R. § 2.309**, such a materially changed application must be treated as the operative version for review and for determining the admissibility of contentions.

Accordingly, the Joint Petitioners’ Supplemental Petition properly addresses the current and controlling application now before the Board—Holtec’s September 23, 2025 filing.

**FOR THE FULL RECORD: HOLTEC SEPTEMBER 23
SUBMISSION, SCOPE ADDITION DESCRIPTIONS: MISSING
FROM HOLTEC LAR SUBMITTALS**

In Support of Contentions One, Two, Three, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

Contention 3 – Omission of Required Technical-Specification Changes for S2-15 (Reactor-Coolant-System Vents) (Consolidated Petition)

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

Contention 5 – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)

Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

INTRODUCTION TO EXPANDED TABLE S-2 DESCRIPTIONS

Joint Petitioners submit the following expanded descriptions of the five NFPA-805 Table S-2 fire protection modifications that Holtec now seeks to defer in its September 23, 2025 Supplemental License Amendment Request (LAR). Each modification—**S2-13, S2-15, S2-19, S2-23, and S2-37**—is a deterministically required fire-protection feature previously reviewed and approved by the NRC as part of **License Amendment 254 (ML15007A191)** and **License Amendment 269 (ML19198A080)**.

In contrast, Holtec’s September 23 filing summarizes these complex, safety-significant design changes in **one- or two-line entries**, stripped of the technical and regulatory detail found in the original Entergy submittals. Holtec characterizes the deferrals as merely “*administrative*,” yet provides **no discussion of their underlying safety functions, deterministic bases, or impact**

on post-fire safe-shutdown capability. This brevity is not a minor drafting flaw—it reflects a substantive failure to meet the requirements of **10 C.F.R. § 50.90**, which obligates an applicant to *“fully describe the changes desired, and follow as far as applicable, the form prescribed for original applications.”*

By omitting the detailed technical descriptions, safety analyses, and design justifications for each Table S-2 item, Holtec’s submittal deprives both the NRC Staff and the Licensing Board of the indispensable information necessary to perform the required § 50.90 content adequacy review and § 50.92 safety findings, and to enable the Board to evaluate Joint Petitioners’ contentions. A license amendment request cannot be deemed complete or reviewable when its own record fails to identify, in full, which specific modifications are being altered, deferred, or deleted—and the resulting safety and regulatory consequences of those changes.

The following expanded summaries, provided by the Joint Petitioners, fill a critical gap in the agency record. They accurately reproduce, in substance, the original content and intent of each modification as documented in Entergy’s 2012–2019 NFPA-805 filings and the corresponding NRC-approved license conditions, thereby clarifying the true scope, safety function, and regulatory significance of each Table S-2 item. These detailed descriptions demonstrate that Holtec’s abbreviated representations are insufficient to enable the NRC to make the findings required under 10 C.F.R. § 50.91—that the amendment involves no significant hazards consideration—and that its LAR fails to meet the completeness and clarity standards required under 10 C.F.R. § 50.90 and Regulatory Guide 1.174.

Together, these expanded descriptions provide the Board with the factual and technical foundation necessary to understand the **deterministic safety purpose** of each deferred

modification and the **regulatory implications** of Holtec’s attempt to reclassify substantive safety requirements as mere schedule adjustments.

TABLE S2-13 – COMPONENT COOLING WATER (CCW) SYSTEM CONTROL CIRCUIT PROTECTION

Holtec (Sept. 30 LAR full description): “Item S2-13, Component Cooling Water (CCW) Heat Exchanger Temperature Control Valve modification”

Historical Record (Entergy 2012–2018):

The Palisades NFPA-805 Transition Report (ML12348A455) explicitly identifies Table S2-13, “*Component Cooling Water (CCW) System Control Circuit Protection*,” among the plant modifications required for full implementation of NFPA-805. Attachment G of the Transition Report describes related operator actions for restoring or maintaining CCW flow paths to the reactor coolant pump (RCP) seal-cooling system following fire-induced circuit faults. Specifically, the report lists actions for opening CCW valves **CV-0910, CV-0911, and CV-0940** and starting CCW pumps **P-52A/B/C** in the event of spurious stops or valve isolations caused by control-circuit failures:

“This operator action addresses opening component cooling water valves CV-0910, CV-0911 and/or CV-0940 for primary coolant pump seal cooling, given isolation of component cooling water valves to containment.”

“This operator action addresses starting component cooling water pumps P-52A, P-52B or P-52C primarily to maintain primary coolant pump seal cooling, given spurious component cooling water pump stops.”

These measures correspond to the S2-13 modification, which was created to provide **control-circuit protection** for the CCW system—ensuring that fire-induced electrical faults (“hot shorts”) could not spuriously isolate containment cooling or interrupt RCP seal-cooling flow.

Subsequent Entergy filings (2018 LAR ML18305B320 and 2019 RAI ML19122A485) reaffirmed that **JACQUE-FIRE (NUREG/CR-7150)** governed evaluation of CCW control-circuit vulnerabilities and that **S2-13**, together with the companion but later-cancelled **S2-14** modification, addressed spurious-actuation hazards in CCW valve circuits.

Function:

S2-13 provides deterministic circuit-protection and cable-routing improvements within the CCW system to prevent fire-induced energization of solenoids or relays that could spuriously close or isolate CCW valves. The modification preserves CCW flow paths to containment and essential heat-removal components without relying on manual operator action—meeting the Appendix R § III.G and § III.L safe-shutdown objectives retained under NFPA-805.

Holtec’s Action:

Holtec’s September 23, 2025 Supplemental LAR includes S2-13 among the deferred Table S-2 items but provides no supporting deterministic circuit analysis or verification that CCW spurious-operation vulnerabilities remain protected. Deferral leaves unresolved smart-hot-short concerns that could cause loss of CCW containment cooling, compromising post-fire safe-shutdown integrity.

TABLE S2-15 – SPURIOUS OPERATION OF REACTOR HEAD / PRESSURIZER VENT VALVES

Holtec (Sept. 30 LAR full description): “Item S2-15, Reactor/Pressurizer Head Vent Valve modification”

Historical Record (Entergy 2018–2019):

Entergy’s 2018 NFPA-805 LAR (PNP 2018-040, ML18305B322) and 2019 RAI response (ML19149A302) describe this modification as a direct corrective measure for **smart hot-short vulnerabilities** identified in the **reactor head and pressurizer vent isolation valve control circuits**. The original problem involved fire-induced spurious energization of solenoid-operated isolation valves, which could **open both vent paths** and create an **uncontrolled containment-bypass** route.

The original S2-15 description stated it would “*replace the existing cabling to the reactor head vent valves and pressurizer vent valves with fire-rated cables.*” Entergy later revised this wording to reflect a stronger control-circuit redesign:

“This modification will modify the control circuit and replace existing cabling to the reactor head vent and pressurizer vent isolation valves... [remove potentially energized conductors to solenoids and] add a second set of contacts to make the circuit ‘double break’... reduc[ing] the risk of spurious operation (opening).”

Entergy cited **NUREG/CR-7150 (JACQUE-FIRE)** as the controlling method. Applying it reduced reliance on fire-rated cable but still required **deterministic circuit reconfiguration** to eliminate continuously energized conductors and introduce **double-break** isolation.

Function:

S2-15 provides deterministic circuit-protection and cabling improvements to prevent fire-induced spurious energization of the vent-valve solenoids. It eliminates smart-hot-short vulnerabilities so a fire cannot spuriously open both valves and create an uncontrolled release path, preserving the ability to maintain vent-path isolation without operator manual actions, consistent with Appendix R § III.L and NFPA-805.

Holtec’s Action:

Holtec’s September 23, 2025 Supplemental LAR lists **S2-15** for deferral despite its prior identification as a **high-significance** containment-bypass correction. Deferral removes near-term completion of a modification intended to close a critical Appendix R/NFPA-805 non-conformance in safety-related vent-valve control circuits.

TABLE S2-19 – ALTERNATE DC POWER SUPPLY FOR AUXILIARY HOT SHUTDOWN PANEL (AHSOP)

Holtec (Sept. 30 LAR full description): “Item S2-19, Alternate DC Power Supply for Auxiliary Hot Shutdown Panel EC-150”

Historical Record (Entergy 2012–2019):

The NFPA-805 Application (ML12348A455) and later filings identify the **AHSOP (EC-150)** as a **credited alternate-shutdown station** under **Appendix R § III.L** when the control room is uninhabitable. The Transition Report describes placing EC-150 in service to operate the **steam-driven AFW pump (P-8B)** and Steam Generator flow valves **CV-0727/CV-0749**:

“Action may be required to place EC-150... into service to allow control of auxiliary feedwater system components including operation of P-8B... and steam-generator flow control...”

Table B-2 emphasizes **125-V DC** control power must be capable of supporting loads long enough without chargers:

“The 125 V DC distribution system supplies control power... [and] it must be verified that sufficient battery capacity exists...”

Entergy’s 2018 LAR (ML18305B322) confirmed **S2-19** as required; details were submitted on secure media withheld under **10 C.F.R. § 2.390** and incorporated as a binding **license condition in Amendment 269 (ML19198A080)**. S2-19 corrects a deterministic deficiency: the AHSOP’s reliance on a **single, fire-vulnerable DC source** via shared cabling, by installing an **independent 125-V DC supply** with isolated routing and protection.

Regulatory Context:

Appendix R § III.L allows alternate shutdown only if it is independent of control-room circuits, can achieve/maintain safe shutdown remotely, and has adequate instrumentation, control, and power. That demands independent power and separation for the AHSOP.

Function:

S2-19 provides a fire-isolated, independent 125-V DC source for EC-150 so charging/letdown, RHR, AFW, and key controls/indications remain powered even if normal DC buses are lost. It prevents smart-hot-short propagation into alternate-shutdown circuits and preserves the AHSOP’s functional independence from the main control-room power supplies.

The 2012 Application also states: “For fire areas 1 and 2... transfer to and control of equipment from the EC-150/EC-150A panels are considered primary control station actions.”

Holtec’s Action:

Holtec lists S2-19 for deferral beyond restart yet provides no deterministic demonstration that the AHSOP still satisfies § III.L independence using manual actions as a substitute for the second required DC source. That leaves unresolved whether the credited alternate-shutdown path remains functionally independent and operable—a substantive non-compliance, not a scheduling issue.

TABLE S2-23 – ELECTRICAL COORDINATION MODIFICATION

Holtec (Sept. 30 LAR full description): “Item S2-23, Electrical Coordination modification”

Technical Basis & Historical Record (Entergy 2012–2018):

This safety upgrade corrects vulnerabilities that could allow a post-fire fault to **trip upstream breakers** and **de-energize safe-shutdown buses**. The NFPA-805 Transition Report (ML12348A455) and supporting analyses (SEP-SSDA-PLP-001; EA-APR-95-004) set deterministic acceptance criteria to ensure **protective-device coordination and selectivity** so the **load-side device trips first** across the full over-current spectrum. Where coordination could not be proven, Entergy identified **Attachment S, Table S-2** corrective actions:

“...replace MCC-3 breakers 52-345/52-325; add/upgrade DC-panel fusing in 11-1/11-2/11A and 21-1/21-2/21A; replace Y01-served panel fuses; and adjust settings on 152-201/152-115/152-108. Entergy’s 2018 LAR confirmed S2-23 among the withheld Table S-2 items under § 2.390, later incorporated into Amendment 269 (ML19198A080).”

Function:

Ensure faults clear locally without tripping upstream sources that power emergency/safe-shutdown loads—an Appendix R obligation that prevents a single fire-induced smart-hot-short or cross-train fault from disabling redundant divisions, preserving bus integrity and core/containment functions.

Regulatory Context:

Methodology aligns with **Appendix R** and **NEI 00-01 § 3.5.2.4**, requiring coordination for shared sources and **physical modifications** where coordination cannot be demonstrated.

Holtec’s Action:

Holtec’s brief description of S2-23 provides no details on the remaining work and includes neither a deterministic nor a PRA analysis demonstrating that post-fire electrical coordination margins remain intact. This omission leaves unresolved the original “*Electrical Coordination Challenges*”—specifically, the risk that a single uncoordinated fault could trip upstream protection and simultaneously disable redundant divisions, constituting an Appendix R/ NFPA-805 non-conformance if left uncorrected.

TABLE S2-37 – TURBINE BUILDING FRESH AIR FAN MODIFICATION

Holtec (Sept. 30 LAR full description): “Item S2-37, Turbine Building Fresh Air Fan modification”

Historical Record (Entergy 2012–2018):

Entergy tracked this as S2-39: “*Turbine Building Fresh Air Fan V-210 Fire Rating. Perform walkdown and evaluate the fire rating of the supporting structure for fan V-210.*” The NRC incorporated it as S2-37 in License Amendment 269 (ML19198A080), establishing an enforceable license-condition obligation. The modification addresses fire rating of the fan’s structural supports and associated cabling to ensure the fresh-air fan remains operable under post-fire conditions. Its operability is credited in post-fire safe-shutdown analyses to maintain habitability/air quality for operator actions and to limit secondary fire spread via ventilation ducts.

Function:

Provide **rated structural protection** and **fire-isolated power/control** for the turbine-building

fresh-air fan (V-210), maintaining ventilation if fires disable normal feeds. This satisfies the intent of **Appendix R § III.O** and **NFPA-805 § 3.11** for environmental control and prevention of secondary ignition. It is a **Defense-in-Depth** safeguard protecting both equipment and operator habitability for credited manual actions. **Holtec did not update or re-validate DID and margin analyses** for this system in its filings.

Holtec’s Action:

Holtec lists **S2-37** among the five deferred items but provides **no evaluation of ventilation or habitability** impacts on post-fire operator actions. That omission leaves unresolved whether turbine-building ventilation continues to meet **Appendix R/NFPA-805** requirements—another **documentation and compliance gap** in the deferred-scope amendment.

ADMISSION, APPLICABILITY OF 10 C.F.R. § 2.309(F) — AND/OR ALTERNATIVE SHOWINGS UNDER §§ 2.309(C)

ROADMAP — ADMISSION, APPLICABILITY OF 10 C.F.R. § 2.309(F), AND ALTERNATIVES UNDER §§ 2.309(C)

Purpose. This section explains why the Supplemental Petition is admissible now and under which procedural pathways the Board may proceed.

1) Procedural Summary (Overview of Three Pathways).

- **Primary path — § 2.309(f):** Treat Holtec’s September 23, 2025 filing as a **replacement LAR** within the same open proceeding; Petitioners’ contentions are timely and directed to the operative application.

- **Alternative path — § 2.309(c):** If the filing is viewed as a “*supplement*,” Petitioners show **good cause** for amended/new contentions (new, material info; promptly filed).

2) Applicability of § 2.309(f) (Primary Showing).

- **What changed:** Holtec **replaced** the entire Enclosure, expanded Table S-2 items (from 2 to 5), added new categories (“*compliance*” / “*risk-reduction*”), expanded DID conclusionary statement, and introduced “*supply-chain challenges*”, instead of “*Substantial Progress*”.
- **Why § 2.309(f) applies:** Proceeding remains open under the July 18, 2025 FRN; Petitioners address the **current, operative** application; no waiver of rights in joint motion scheduling filing.

3) Replacement of the Entire Enclosure (Why Sept. 30 Holtec filing Controls).

- **Holtec’s words:** “This submittal replaces the Enclosure and attachments ...” → the operative technical evaluation is the **September 23 Enclosure**.
- **Effect:** The Board and parties must evaluate **only** the September 23 document; Petitioners’ contentions properly target the **active** LAR text in the September 23 “*Enclosure*”.

4) Details of Scope/Depth Changes (What’s New).

- **Substance:** New S2 items (S2-19, S2-23, S2-37), new classifications, new factual bases, revised DID conclusionary statement; **no** updated Attachments M/S/W despite broadened scope.
- **Implication:** Transforms a limited schedule change into a **materially new** amendment; responses remain **timely** under § 2.309(f).

5) Math & Logic Demonstrations (Reinforcing Non-Equivalence).

- **Distributive law framing:** Replacing A (June Enclosure) with B (September 23 Enclosure) makes even common terms (S2-13, S2-15) **non-equivalent** → the filing is **new/independent**.
- **Boolean framing:** If $A \neq B$, then $(A \wedge X) \neq (B \wedge X)$ for shared subset X → the September 23 filing **cannot** be a mere supplement.

6) § 2.309(f)(1) Six-Factor Admissibility (Checklist).

- Identifies disputed portions of the revised LAR; provides factual/regulatory bases; shows materiality to §§ 50.48(c), 50.90, 50.92 findings; presents genuine disputes; stays within noticed scope; incorporates prior record.

7) Alternative Showing — § 2.309(c)(1) Good Cause (If Needed).

- **New & materially different information** first available on Sept. 30; **prompt** filing; **no prejudice** to any party → contentions admissible even under the late-filed standard.

Requested Procedural Outcome.

- **Admit** this Supplemental Petition under **§ 2.309(f)** as the preferred path; **alternatively**, admit under **§ 2.309(c)**.

=====End of Roadmap=====

PROCEDURAL PATH SUMMARY

This section presents three complementary procedural bases supporting the admissibility of this Supplemental Petition and ensuring that all parties are responding to the same, current version of the application now before the NRC.

First, Joint Petitioners assert that Holtec’s September 23, 2025 filing is not a minor supplement but a **materially revised License Amendment Request (LAR)** that withdraws and replaces the prior June 24 submittal in its entirety. Under this interpretation, the proceeding remains open under 10 C.F.R. § 2.309(f), and all Petitioners’ contentions are timely because they address the operative version of the application. Once an applicant meaningfully changes its request after the hearing window has closed—especially by adding new safety-significant items or replacing the technical evaluation—the Board and all participants must turn their attention to the revised application. Fairness and common sense require that Petitioners be allowed to respond to the filing that actually governs the NRC’s review, not to one that no longer exists.

Second, in the alternative, if the Board views Holtec’s September 23 submission as a *supplement* rather than a full replacement, Petitioners show that this filing meets the **good-cause criteria of § 2.309(c)** for admitting amended or new contentions. Petitioners acted promptly once the new information became available and within the extended period allowed by the government-shutdown tolling order. Allowing this filing causes no delay or undue burden on the other participants, because no hearing schedule or discovery deadlines have been set. Accepting it simply ensures that the proceeding stays aligned with the current technical and regulatory information that Holtec itself introduced.

REPLACEMENT OF THE ENTIRE ENCLOSURE — WHY THE SEPTEMBER 23 FILING SUPERSEDES THE JUNE 24 LAR

Holtec’s September 23, 2025 submittal (PNP-2025-070) is not a “*supplement*” to its earlier June 24, 2025 License Amendment Request (PNP-2025-040); it is a complete replacement. Both

filings contain only two primary elements: (1) the cover letter and (2) the “*Enclosure to PNP-2025-070, Evaluation of the Proposed Change*,” which provides the full description of the proposed license-condition change, the scope, the technical evaluation, and the revised license-condition markup. No other attachments or enclosures include the substantive content of the amendment request.

Holtec itself confirmed this full substitution in its cover letter:

“This submittal replaces the Enclosure and attachments in Holtec Palisades letter PNP-2025-040, dated June 24, 2025 (Reference 8).”

This explicit statement establishes that the entirety of the June 24 technical scope, analysis, and supporting attachments were withdrawn and replaced. The only material similarity between the two filings is the cover letter; the operative portion—the enclosure—was rewritten in full. The September 23 version expands the number of NFPA-805 Table S-2 license-condition items from two (S2-13 and S2-15) to five (S2-13, S2-15, S2-19, S2-23, and S2-37), introduces new regulatory classifications (“*compliance modifications*” and “*risk-reduction modifications*”), adds new justifications based on “*supply-chain challenges*,” and revises the Defense-in-Depth conclusionary statement. None of these elements appeared in the June 24 LAR.

As demonstrated in the earlier section applying **mathematical and logical proofs**—including the Law of Sets and the Distributive Property—once the analytical foundation and scope relationships among the variables (here, the Table S-2 modifications) are changed, the resulting filing becomes a new and independent submission. Likewise, under the **Doctrine of Material Alteration**, when a licensee replaces the analytical core of its application with new technical

bases and scope, the subsequent version supersedes the prior submittal as a matter of administrative law.

Accordingly, because Holtec replaced the entire enclosure—the portion containing the operative scope description, the technical evaluation, and the proposed license-condition text—the **September 23 submittal must be treated as the controlling version of the application.** Under standard NRC practice, once an applicant withdraws and resubmits a revised enclosure, that new enclosure supersedes the earlier one within the same docketed proceeding.

Therefore, the Board and all parties must evaluate this proceeding solely on the September 23 “*Enclosure*” document. For purposes of applying the admissibility standards under 10 C.F.R. §§ 2.309(f) and/or 2.309(c), this replacement establishes that the Joint Petitioners’ contentions properly address the only active and reviewable application before the NRC—the September 23, 2025 LAR. Whether the Board treats this filing as a complete replacement under § 2.309(f) and/or as a materially altered amendment satisfying the good-cause standard under § 2.309(c), the operative text for evaluation is the September 23 Enclosure. The June 24 submission no longer has regulatory effect and should not constrain the Joint Petitioners’ analysis, the NRC Staff’s review, or the Board’s adjudication.

DETAILS OF SCOPE AND DEPTH OF HOLTEC’S LAR CHANGES, NECESSARY ATTACHMENTS REMAIN MISSING

The September 23 Holtec submittal differs from the June 24 LAR in every material respect. Holtec replaced the entire technical enclosure, increased the number of affected Table S-2 items from two to five, and introduced new factual and analytical bases not present in the original

filing. It added distinct classifications of “*Compliance Modifications*” and “*Risk-Reduction Modifications*,” referenced a new justification rooted in “*supply-chain constraints*” and “*material availability*,” and inserted new narrative discussions for S2-19, S2-23, and S2-37. No updated Attachments M, S, or W were provided, despite these changes expanding the technical and licensing scope of the amendment. These cumulative revisions reflect a fundamental change in scope and analytical depth — transforming what was originally a limited scheduling adjustment into a materially new license-amendment application. For the specific factual differences supporting this conclusion, see Attachment B — Factual Differences Between Holtec’s June 24 and September 23 2025 Submittals.

When an applicant replaces or materially changes an application already under NRC review, the standard practice is to treat public responses to those changes as **timely and continuing under § 2.309(f)**, because they address the current version of the application. This approach promotes fairness and ensures that all parties, including the public, respond to the same version of the licensing action that the NRC will ultimately decide.

Accordingly, this Supplemental Petition continues the Joint Petitioners’ previously filed request for hearing on the same docketed amendment, updated to reflect Holtec’s expanded and changed Technical Evaluation (September 23 filing). It is therefore governed by § 2.309(f), which prescribes the six admissibility criteria for contentions, and not by the “late-filed” good-cause test of § 2.309(c). Applying § 2.309(f) ensures the Board reviews Petitioners’ arguments under the same procedural framework that governs the existing proceeding and that all parties address the currently operative version of Holtec’s license-amendment request.

**PRIMARY PROCEDURAL PATH BASIS: APPLICABILITY OF 10 C.F.R. § 2.309(f)
AND SATISFACTION OF THE SIX ADMISSIBILITY CRITERIA**

This Supplemental Petition is submitted first, under the standards of **10 C.F.R. § 2.309(f)**, which governs the content and admissibility of timely contentions filed within an open proceeding.

Section 2.309(f) is the controlling authority when a petitioner responds to a revised or newly submitted application before the proceeding is formally closed. By contrast, **§ 2.309(c)** applies only when a party seeks to raise new or amended contentions after the close of the initial hearing opportunity and must demonstrate good cause for lateness.

Applicability of § 2.309(f)

Joint Petitioners maintain that Holtec Palisades, LLC’s September 23, 2025 submittal (PNP-2025-070) constitutes a materially revised License Amendment Request (LAR) that **withdraws and replaces** the prior June 24, 2025 version in its entirety. The revised filing:

- **Expands** the number of NFPA-805 Table S-2 license-condition items from two to five;
- **Introduces new regulatory categories**, identifying “*compliance modifications*” and “*risk-reduction modifications*”;
- Expands the Defense-in-Depth conclusionary statement, adding new qualitative justifications; and
- **Substitutes** “*supply-chain challenges*” for the prior claim of “*substantial progress*” as the factual basis for schedule extension.

Because the September 23 submittal supersedes and broadens the original LAR, it functions as a **new application within the same docketed proceeding**, not as a supplemental clarification.

The **Federal Register notice of July 18, 2025 (89 Fed. Reg. 54012)** therefore remains the operative notice of opportunity for hearing, keeping this proceeding open under § 2.309(f).

Accordingly, this Supplemental Petition is properly filed under § **2.309(f)** as a timely and responsive pleading within an open proceeding, addressing the current operative application that Holtec itself placed before the Board.

Satisfaction of the Six Admissibility Criteria in § 2.309(f)(1)

As an alternate showing of an admissible procedural path, this Supplemental Petition also meets **all six admissibility criteria** set forth in **10 C.F.R. § 2.309(f)(1)**:

1. Specific Portions Identified

The Petition directly challenges the portions of Holtec’s September 23 LAR (PNP-2025-070) that replaced the June 24 enclosure, **expanding Table S-2 items from two to five** and altering both the technical and regulatory bases for the requested deferral. The disputed content includes the complete *Enclosure to PNP-2025-070, Evaluation of the Proposed Change*, which contains the scope description, technical justification, and license-condition markup.

2. Basis for the Contention

Each contention sets forth a clear factual and regulatory basis, supported by NRC docketed materials such as prior NFPA-805 submittals, Safety Evaluations, and enforcement-discretion correspondence. These references show precisely how Holtec’s new assertions—its introduction of “risk-reduction” and “compliance” categories and reliance on “supply-chain challenges”—depart from previously approved bases and affect the NRC’s required findings.

3. Within the Scope of the Proceeding

All issues remain squarely within the scope of the existing **NFPA-805 license-amendment proceeding**. The Petition raises no new subject matter but responds directly to Holtec's revisions to the same license-condition framework governed by **10 C.F.R. § 50.48(c), Appendix R**, and the established **Palisades fire-protection licensing basis**.

4. Material to NRC's Required Findings

The matters contested are material to the NRC's mandatory findings under §§ **50.48(c), 50.90, and 50.92**. The deferred modifications involve safety-significant systems credited for post-fire safe-shutdown capability and defense-in-depth. The NRC cannot make a reasonable-assurance finding without resolving the deficiencies identified in this Petition.

5. Supporting Facts and References

The Petition provides detailed references to ADAMS accession numbers, Palisades licensing correspondence, and relevant technical analyses demonstrating a sound factual foundation. The **September 7, 2025 Consolidated Petition** is incorporated by reference and updated to reflect the expanded scope and new information introduced in the September 23 LAR.

6. Genuine Dispute with the Applicant

Each contention establishes a direct and material disagreement between Holtec's new statements and the established licensing record. Petitioners dispute, for example, Holtec's re-characterization of S2-19 and S2-37 as administrative, its substitution of probabilistic-risk arguments for required deterministic analyses, and its unsupported claim of

continued “substantial progress.” These conflicts constitute genuine disputes requiring adjudication under § 2.309(f)(1)(vi).

Summary: 10 C.F.R. § 2.309(f)

By satisfying both the procedural framework of § 2.309(f) and the six substantive admissibility elements of § 2.309(f)(1), this Supplemental Petition qualifies as a timely and properly supported pleading within an open proceeding. It ensures that the Board, NRC Staff, and all participants are addressing the **same operative application** now under review—the September 23, 2025 revision that Holtec itself submitted.

ALTERNATIVE SHOWING OF GOOD CAUSE UNDER 10 C.F.R. § 2.309(c)(1)

In the alternative, and consistent with the second procedural path described above, Joint Petitioners demonstrate that this Supplemental Petition satisfies the “**good-cause**” criteria in **10 C.F.R. § 2.309(c)(1)** for consideration of new or amended contentions based on newly available information.

Under § 2.309(c)(1), a late or supplemental filing may be admitted when:

1. The information upon which the filing is based was not previously available;
2. The filing was submitted promptly after the new information became available; and
3. The filing will not unduly prejudice other participants.

Each element is satisfied below.

Information Not Previously Available

The information underlying this Supplemental Petition was not available to Petitioners or the public during the initial hearing opportunity. Holtec Palisades, LLC’s September 23, 2025 submittal (PNP-2025-070) was not posted in ADAMS until October 1, 2025—the first day of the federal government shutdown—well after the deadline for petitions responding to the June 24 LAR (ML25175A275) and its associated July 18, 2025 Federal Register notice (89 Fed. Reg. 54012).

The revised filing introduced substantial new and materially different information not contained in the original submittal, including:

- Complete replacement of the prior *Enclosure* and all attachments;
- **Addition of three new NFPA-805 Table S-2 items** (S2-19, S2-23, and S2-37) representing new license-condition modifications;
- **Introduction of new regulatory categories** distinguishing “compliance modifications” and “risk-reduction modifications”;
- Expansion of the Defense-in-Depth conclusionary statement to include new qualitative arguments; and
- **First-time identification of “supply-chain challenges”** as the stated factual basis for deferring safety-significant modifications, replacing Holtec’s prior claim of “substantial progress.”

None of these elements appeared in the June 24 LAR or any other docketed record when the original petition window closed. Petitioners therefore could not have addressed or anticipated them earlier. The first prong of § 2.309(c)(1) is satisfied.

Prompt Filing After Information Became Available

Joint Petitioners acted promptly and diligently once the new information became publicly accessible. This Supplemental Petition was prepared and filed within weeks of the September 23 LAR's posting in ADAMS and within the tolled timeframe established by the Commission's October 1, 2025 government-shutdown order.

Petitioners also coordinated directly with Holtec's counsel during that period to ensure procedural alignment. Correspondence with Holtec attorney **Alan Lovett** confirmed mutual understanding that the new submittal required a revised schedule "addressing the LAR supplement and the federal shutdown," and that both sides anticipated the need for procedural accommodation. These communications demonstrate that Petitioners acted expeditiously and in good faith.

Accordingly, this filing satisfies § 2.309(c)(1)(ii): it was submitted as soon as practicable after the new information became available and before any adjudicatory deadlines resumed.

No Undue Prejudice to Other Participants

Acceptance of this filing will not unduly prejudice any participant. At the time of filing, no discovery or hearing schedule had commenced, and all deadlines were suspended due to the government shutdown. NRC Staff and Holtec both retain full opportunity to respond under the Board's control of the schedule.

Although this Petition is timely under § 2.309(f), it also satisfies the **fairness principles embodied in § 2.309(c)**. It was filed promptly after Holtec's revised information became

publicly available and within the tolled timeframe created by the Commission's October 1, 2025 order.

Permitting this filing simply ensures that the proceeding remains aligned with the **current operative version** of Holtec's application—the September 23 LAR that Holtec itself submitted after the original petition date and made publicly available on the first day of the shutdown.

Allowing this update does not expand the proceeding's scope beyond Holtec's own revisions; rather, it preserves procedural symmetry and ensures that all participants and the Board address the same operative record.

The NRC has long recognized that fairness requires allowing parties to respond when an applicant substantively revises its filing after the close of the initial petition window. This approach promotes transparency, fairness, and efficiency, consistent with the Commission's principle that **no party should be required to litigate against a superseded application**.

Accordingly, Petitioners meet the third prong of § 2.309(c)(1).

Conclusion Under § 2.309(c)(1)

For these reasons, Petitioners have demonstrated **good cause** under each prong of § 2.309(c)(1):

- The information forming the basis of this Petition was not previously available;
- Petitioners acted promptly after its release; and
- No undue prejudice results from its acceptance.

Furthermore, this Supplemental Petition continues to meet the **substantive admissibility standards of § 2.309(f)(1)** by identifying specific disputed portions of the revised LAR,

providing supporting regulatory and factual bases, and establishing genuine disputes on material issues of law and fact.

Accordingly, even if the Board determines that § 2.309(c)(1) governs, Petitioners have fully satisfied both the **procedural** and **substantive** requirements for admission. The Board may therefore consider this Supplemental Petition under either procedural standard—§ 2.309(f) as a timely response within an open proceeding, or, in the alternative, § 2.309(c) as a good-cause new-information filing consistent with NRC precedent and fairness principles.

SUFFICIENCY OF PETITIONERS’ FILINGS IF SUBSTITUTION IS ACCEPTED

Under either procedural pathway—whether the Board determines that Holtec’s September 23, 2025 submittal fully replaces the June 24, 2025 LAR or treats it as a materially altered amendment within the same proceeding—Joint Petitioners confirm that the September 7, 2025 Consolidated Petition and this Supplemental Petition together constitute their complete filing under 10 C.F.R. § 2.309(f), addressing the operative and controlling application. Petitioners do not intend to submit a separate replacement petition. Any further filing by Petitioners will be limited to:

- A single **Reply** to NRC Staff’s and Holtec’s answers, consistent with the Board’s order and reply-scope restrictions; and
- Any subsequent filing the Board may specifically direct.

This clarification ensures that the record reflects Petitioners’ complete and coordinated presentation of contentions, bases, and supporting arguments across the two filings, addressing the **only active version** of the License Amendment Request now before the NRC.

PRECEDENT DEMONSTRATING THE ADMISSIBILITY OF COMPLETENESS-BASED CONTENTIONS, 50-155-LT-2

(Application to Holtec’s September 23, 2025 License-Amendment Request With Replacement Attachment Describing New Scope and New Technical Evaluations)

In Support of Contentions One, Two, Three, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 3** – Omission of Required Technical-Specification Changes for S2-15 (Reactor-Coolant-System Vents) (Consolidated Petition)*

***Contention 4** – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

PURPOSE AND SCOPE OF THIS SECTION

This section does not introduce any new contention or argument. Its purpose is solely to demonstrate, through binding precedent, that the Joint Petitioners’ Contentions—which allege that Holtec’s September 23, 2025 License Amendment Request (LAR) fails to meet the completeness and information requirements of 10 C.F.R. § 50.90—are fully consistent with the ASLB’s prior adjudicatory practice for admitting contentions that identify missing, indispensable

information. The discussion below summarizes the Michigan Attorney General’s petition (50-155-LT-2 , ML21055A888) and the Atomic Safety and Licensing Board’s decision in LBP-22-08 (ML22196A108), which **admitted a materially identical completeness-based contention**. These same legal principles, not new factual claims, apply directly to Holtec’s September 23 LAR and support the admissibility of Joint Petitioners’ contentions.

This precedent discussion also anticipates Holtec’s likely response—consistent with answers it made in its 2021 Answer to the Michigan Attorney General—that the NRC accepts “*plausible forecasts*” and that “*the mere casting of doubt*” is insufficient to defeat a finding of “*reasonable assurance*.” **As the Board clarified in its decision, LBP-22-08;**

‘...however, when an application omits the very information that the NRC must rely upon to determine whether any forecast or assumption is plausible, the application is procedurally incomplete, and a contention identifying that omission is admissible.’

PRECEDENT FROM THE MICHIGAN ATTORNEY GENERAL PROCEEDING:

THE ASLB’S ADMISSION OF A CONTENTION BASED ON MISSING

INDISPENSABLE INFORMATION

The Michigan Attorney General’s Petition for Leave to Intervene in *Entergy Nuclear Operations, Inc., et al.* (Palisades Nuclear Plant and Big Rock Point Site), ML21055A888, was grounded on the simple premise that Holtec’s application, in that adjudication, failed to provide the indispensable information necessary for the NRC to make the findings required by regulation.

The Attorney General asserted that the License Transfer application of 2021

“lacks sufficient detail, documentation, and independent verification to permit the NRC to make the findings required by 10 C.F.R. § 50.33(k). The NRC cannot discharge its statutory obligation when the application fails to include the factual basis upon which the finding of financial assurance must rest.” (AG Petition ML21055A888 at 8-9)

In support, the AG cited *Florida Power & Light Co. (Turkey Point)*, CLI-01-17, 54 NRC 3 (2001), and *Vermont Yankee Nuclear Power Corp.*, LBP-07-15, 66 NRC 261 (2007) for the principle that:

“a contention asserting that an application is incomplete or fails to supply required information is admissible where the omitted information is indispensable to an NRC finding.”

The AG’s petition also relied on *Dominion Nuclear Connecticut (Millstone)*, CLI-04-36, 60 NRC 631 (2004) and *Private Fuel Storage*, LBP-98-7, 47 NRC 142 (1998), emphasizing that contention admissibility turns on: *“a genuine dispute of material fact, not on the ultimate merits.”*

The Attorney General further explained in their petition:

“NRC rules of practice and procedure provide that the ‘applicant or the proponent of an order has the burden of proof.’ A petitioner need only present a disputed material question of fact for hearing and can challenge the level of detail provided by the Applicant” (AG Petition ML21055A888 at 6)

THE MICHIGAN ATTORNEY GENERAL’S REPLY REINFORCING ADMISSIBILITY BASED ON MISSING OR UNSUPPORTED INFORMATION

In her Reply (ML21088A436) to Holtec’s Answer, the Michigan Attorney General clarified the proper legal standard for contention admissibility under 10 C.F.R. § 2.309(f)(1) and § 2.325, emphasizing that the **applicant or proponent of an order—not the petitioner—bears the burden of proof**. The AG’s Reply explained that a petitioner need not disprove an application’s assertions or quantify their inaccuracy; rather, the petitioner need only identify a *“genuine*

dispute of material fact or a deficiency in the information necessary for the NRC to make its required findings.”

Citing *Gulf States Utilities Co. (River Bend Station)*, 40 NRC 43 (1994), and *North Atlantic Energy Service Corp. (Seabrook Station)*, 49 NRC 201 (1999), the Attorney General underscored that **allegations must be viewed in the light most favorable to the petitioner** at the contention-admissibility stage and that a dispute is material when it raises a reasonable question as to whether the application contains sufficient factual support for the NRC’s required determinations.

The AG’s Reply further relied on *Florida Power & Light Co. (Turkey Point)*, CLI-01-17, 54 NRC 3 (2001), *Vermont Yankee Nuclear Power Corp.*, LBP-07-15, 66 NRC 261 (2007), and *Dominion Nuclear Connecticut (Millstone)*, CLI-04-36, 60 NRC 631 (2004), which collectively hold that **a contention asserting that an application is incomplete or fails to supply information indispensable to an NRC finding is admissible**. The Attorney General explained that completeness, not plausibility, defines the threshold question—**an applicant must first provide the factual bases necessary for the NRC to evaluate its assumptions before the reasonableness of those assumptions can be assessed**.

Reinforcing this interpretation, the Attorney General cited Commissioner Christopher T.

Hanson’s dissent in *Entergy Nuclear Operations, Inc. (Indian Point)*, CLI-21-01 (2021):

“Even though cost estimates are uncertain by nature, we are obligated to acknowledge claims from interested persons that call these estimates into question. Our contention-admissibility requirements are not intended to reach the merits of the dispute, but merely to assure that a genuine dispute on a material fact within the scope of the proceeding exists.” (Id., at 19 n.62.)

The AG's Reply therefore concluded that *when an application omits or fails to substantiate information required by regulation, that omission itself establishes a material factual dispute* under § 2.309(f)(1). The issue at this stage is not the correctness of the applicant's conclusions but whether the NRC possesses enough documented information to make the findings required by law.

THE ASLB'S RULING TO THE ATTORNEY GENERALS CONTENTION, IN LBP-22-08

In LBP-22-08 (ML22196A108), the Atomic Safety and Licensing Board granted the Attorney General's petition in part, admitting a single contention limited to four issues concerning Holtec's financial-assurance showing. The Board found that the Michigan AG's contention;

*"...raises a genuine dispute with the application by identifying material gaps and unsupported assumptions in Holtec's financial qualifications demonstration—specifically, the lack of cost-basis documentation and unverified contingency allowances. **These omissions, if proven, could preclude the NRC from making its required finding of adequate financial assurance.**" (LBP-22-08 at 27)*

Applying the same precedents cited in the AG's petition—Turkey Point, Vermont Yankee, and Millstone—the Board, in its decision, reaffirmed that:

"a contention asserting that an application is incomplete or deficient in providing required information may be admissible if the omitted information is necessary to the NRC's findings." (Id. at 25, citing Turkey Point, CLI-01-17, 54 NRC at 10.)

The Board's decision emphasized that the issue was procedural completeness, not substantive correctness:

“The question at the admissibility stage is not who will ultimately prevail on the merits, but whether the petitioner has raised a genuine dispute on a material issue of fact or law.” (Id. at 24, citing Millstone, CLI-04-36, 60 NRC at 638.)

Accordingly, the Board admitted the contention because Holtec’s failure to provide the indispensable information required by § 50.33(k) and § 50.82(a)(8) prevented the NRC from making its required regulatory findings.

APPLICATION OF THE MICHIGAN AG’S PRECEDENT TO HOLTEC’S SEPTEMBER 23, 2025 LAR AND JOINT PETITIONERS’ CONTENTION ADMISSIBILITY

The reasoning in LBP-22-08 applies directly to the Joint Petitioners’ Contentions in this case, which challenge the completeness of Holtec’s September 23, 2025 NFPA-805 License Amendment Request. Although the underlying submission requirements differ—financial assurance under 10 C.F.R. § 50.33(k) in the Attorney General’s case, and the requirement under 10 C.F.R. § 50.90 that an application for amendment “*fully describe the changes desired, and follow as far as applicable the form prescribed for original applications*”—both proceedings hinge on the adequacy and completeness of the applicant’s submittal as a condition precedent to NRC review.—the governing principle is identical: **an application that omits information indispensable to the NRC’s required findings is procedurally incomplete and raises a material dispute under § 2.309(f)(1).**

In LBP-22-08, the Board admitted the Michigan Attorney General’s contention because Holtec’s financial-qualification showing omitted key details—missing cost bases, unsupported contingencies, and unverified funding schedules—preventing the NRC from determining whether Holtec met the regulatory requirements of § 50.33(k) and § 50.82(a)(8). The Board

found that those omissions, if proven, “*could preclude the NRC from making its required finding of adequate financial assurance.*”

The same reasoning applies to Holtec’s September 23, 2025 LAR submission is flawed. Here, Holtec’s September 23, 2025 LAR, new enclosure, fails to supply information equally indispensable to the NRC’s required findings under §§ 50.90 and 50.92, including, the underlying NFPA-805 enforcement documentation, deterministic analyses, manual-operator-action evaluations, and defense-in-depth and safety-margin assessments and more as outlined elsewhere, in this petition. These omissions mirror the deficiencies identified in the Attorney General’s case—Holtec has again failed to provide the information necessary for the NRC to determine whether the application satisfies the regulatory standards.

Holtec again asks the NRC to accept what it characterizes as a “*plausible*” and “*reasonable*” outcome despite the absence of the documentation required to make that assurance credible. In doing so, Holtec invokes the same “*reasonable assurance*” framing used in prior proceedings, but without providing the factual bases necessary for the NRC to conclude that its assumptions are plausible or that its conclusions are supportable.

Just as the Board in LBP-22-08 found that the absence of required financial data created an admissible, material dispute, the omissions in Holtec’s September 23, 2025 LAR submission create a parallel dispute concerning missing technical and safety information. In both cases, the question is not whether the petitioners can ultimately prove noncompliance, but whether the NRC has been provided sufficient information to make the findings required by its regulations. Under the Commission’s own precedent, such omissions—rather than the mere “*casting of*

doubt,” as Holtec cautioned in the Attorney General’s case—constitute a valid basis for contention admissibility.

Accordingly, the logic and case law of LBP-22-08 directly support the admissibility of Joint Petitioners’ existing contentions. The precedent confirms that Holtec’s September 23 LAR is procedurally incomplete, and that Petitioners have properly raised a genuine dispute within the meaning of 10 C.F.R. § 2.309(f)(1). This section presents a precedent analysis only and does not introduce any new argument beyond those already presented in the record.

DEMONSTRATION THAT EACH OF THE SEVEN CONTENTIONS SATISFIES THE 10 C.F.R. § 2.309(F)(1) ADMISSIBILITY REQUIREMENTS

INTRODUCTION

As the Atomic Safety and Licensing Board held in *LBP-22-08* (Michigan Attorney General Petition Regarding the Palisades License-Transfer Proceeding),

“A contention is admissible when it identifies a genuine dispute with the application on a material issue of law or fact and alleges the omission of information necessary for the NRC Staff to make the findings required by regulation.”

And

“Conversely, a contention is inadmissible only when it rests on policy disagreement, speculation, or matters outside the scope of the noticed action.” (LBP-22-08, slip op. at 22–24.)

Applying that standard, each of the seven contentions below satisfies § 2.309(f)(1). All seven are evaluated in this Supplemental Petition because Holtec’s **September 23, 2025 License**

Amendment Request substantially revises and expands the scope of its prior June 24

submission, thereby meeting the **Doctrine of Material Alteration** standard and warranting re-evaluation of all admitted and related issues.

CONTENTION 1 – OMISSION OF THE NUREG-0737 DETERMINISTIC EVALUATION (CONSOLIDATED PETITION)

Holtec’s June 24, 2025 LAR to defer NFPA-805 Modification S2-15 omits the deterministic evaluation required by NUREG-0737 Items II.B.1 and II.B.2 that demonstrate the plant’s ability to achieve and maintain safe shutdown following a fire or transient.

This contention is admissible because it “**points to an omission of information indispensable to the NRC’s ability to make the findings required by regulation,**” not a policy dispute (*LBP-22-08* at 22).

It falls squarely within §§ 50.90 and 50.48(c), raising a genuine material dispute concerning procedural completeness.

CONTENTION 2 – FAILURE TO PROVIDE INTEGRATED DEFENSE-IN-DEPTH AND SAFETY-MARGIN EVALUATIONS (CONSOLIDATED PETITION)

Holtec’s LAR omits the evaluations required by Regulatory Guide 1.174 (Section 2.2.4) and NFPA-805 (Section 4.2.4) demonstrating maintenance of defense-in-depth and adequate safety margin.

This contention satisfies § 2.309(f)(1)(vi) because it identifies a **procedural and informational deficiency**—precisely the type the Board found admissible in *LBP-22-08*, where “**an application omitting the information necessary for the NRC to determine whether any forecast or assumption is plausible is procedurally incomplete.**” (*Id.* at 23.)

**CONTENTION 3 – OMISSION OF REQUIRED TECHNICAL-SPECIFICATION
CHANGES FOR S2-15 (REACTOR-COOLANT-SYSTEM VENTS) (CONSOLIDATED
PETITION)**

Holtec’s June 24, 2025 LAR fails to include the Technical Specification (TS) changes required evaluations by **NUREG-0737, Enclosure I, Item II.B.1** (“Reactor-coolant-system vents”), incorporated into the Palisades Current Licensing Basis through **FSAR Revision 35 (§ 4.8)**.

This omission renders the LAR procedurally defective under **10 C.F.R. §§ 50.36 and 50.90**, and violates **Amendment 254, License Condition (3)**, which prohibits use of the “*no prior approval*” pathway when a change “*requires a change to a technical specification.*”

Unlike the AG’s corporate-structure contention—which the Board rejected because it “**failed to identify a specific regulatory requirement violated by the application**”—this contention directly invokes explicit, enforceable license conditions and therefore raises a genuine dispute squarely within the scope of the noticed amendment.

**CONTENTION 4 – FAILURE TO DEMONSTRATE COMPLIANCE WITH NFPA-805
LICENSE-CONDITION COMMITMENTS AND ENFORCEMENT REQUIREMENTS
(SUPPLEMENTAL PETITION)**

Holtec has not provided the documentation required under the continuing enforcement-discretion record (**ML083260577**) or demonstrated completion of the “*substantial-progress*” milestones established in **ML091550665**.

This contention is not speculative, but rather “**alleges the absence of information necessary to a finding of reasonable assurance**” (*LBP-22-08* at 23).

It concerns compliance with § 50.48(c) and the Palisades fire-protection license condition—an issue well within the scope of the license-amendment proceeding.

**CONTENTION 5 – FAILURE TO PROVIDE SAFETY EVALUATIONS FOR THE
REMOVAL OR DEFERRAL OF NFPA-805 TABLE S-2 MODIFICATIONS
(SUPPLEMENTAL PETITION)**

Holtec’s September 23, 2025 LAR defers or deletes multiple NFPA-805 Table S-2 items without supplying the analyses required by ML16015A416 (“Final Safety Evaluation Template”) and §§ 50.90 and 50.92.

Consistent with the Board’s guidance, “*a petitioner need not prove the ultimate merits of its position; it need only identify the missing or incomplete information preventing NRC Staff from performing its regulatory review.*” (LBP-22-08 at 23.)

This contention does precisely that and is admissible under § 2.309(f)(1).

**CONTENTION 6 – FAILURE TO PROVIDE A § 50.59 AND DETERMINISTIC
ANALYSIS FOR THE AUXILIARY HOT-SHUTDOWN PANEL DC SUPPLY (S2-19)
(SUPPLEMENTAL PETITION)**

By proposing to defer S2-19, Holtec removes for an extended period the only independent DC supply to the Auxiliary Hot-Shutdown Panel.

The LAR omits both the **Appendix R § III.L** compliance demonstration and the **§ 50.59** evaluation of altered operator actions.

This raises a genuine dispute of material fact and law, not a policy disagreement, and falls entirely within the scope of the noticed amendment (ML25181A013).

Unlike the AG’s NEPA contention—which the Board dismissed as outside the scope of a license-transfer proceeding—this issue concerns the precise technical subject of the amendment and is properly before the Board.

CONTENTION 7 – FAILURE TO PROVIDE DETERMINISTIC AND § 50.59

EVALUATIONS FOR S2-37 (TURBINE-BUILDING FRESH-AIR FANS /

HABITABILITY) (SUPPLEMENTAL PETITION)

Holtec’s September 23, 2025 LAR defers Table S-2 Modification S2-37, which provides the credited turbine-building ventilation and smoke-control features that ensure operator habitability during post-fire operations and enable access to the Auxiliary Hot Shutdown Panel (AHSOP). By deferring this modification, Holtec changes the licensed method of maintaining safe-shutdown habitability without supplying either the deterministic Appendix R / NFPA-805 ventilation-and-duct-path analysis or the § 50.59 evaluation of changed manual actions and environmental constraints required by regulation.

This contention satisfies § 2.309(f)(1) because it identifies a concrete omission of indispensable information that prevents the NRC Staff from making the findings required by §§ 50.90 and 50.92. The Board in LBP-22-08 confirmed that “*a contention is admissible when it alleges the omission of information necessary for the NRC Staff to make the findings required by regulation*” and is not speculative or policy-based. (LBP-22-08 at 22–24.)

Here, the missing habitability and ventilation analyses are fundamental to determining whether Palisades can achieve and maintain safe shutdown following a control-room fire or loss of habitability. Because Holtec’s omission directly undermines the defense-in-depth and safety-margin demonstrations mandated by NFPA-805 and Regulatory Guide 1.174, this contention

presents a genuine dispute on a material issue of fact and law within the scope of the noticed amendment. Accordingly, Contention 7 is admissible under 10 C.F.R. § 2.309(f)(1).

SUMMARY

Each of the seven contentions therefore:

1. Identifies a *specific omission or procedural defect* in the license-amendment record required by NRC regulation;
2. Falls squarely within the scope of the noticed actions;
3. Raises a *genuine dispute of material fact or law* under §§ 50.36, 50.48(c), 50.59, 50.90, and 50.92; and
4. Avoids the deficiencies the Board cited in rejecting the AG’s other contentions—none are speculative, policy-based, or outside the proceeding’s scope.

Accordingly, under the reasoning of *LBP-22-08*, each contention satisfies **10 C.F.R. § 2.309(f)(1)** and warrants admission.

BACKGROUND: HISTORICAL AND REGULATORY EVOLUTION OF APPENDIX R, MANUAL OPERATOR ACTIONS, AND HOT-SHORT VULNERABILITIES LEADING TO NFPA-805

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

Contention 5 – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)

Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

INTRODUCTION TO HISTORICAL CONTEXT

This historical background is included to explain why the issues of *smart hot shorts* and *manual operator actions* are not merely technical details, but lie at the very heart of the regulatory evolution that produced the NFPA-805 framework. The three additional Table S-2 modifications, added in Holtec’s September 23 filing, and identified in this Supplemental Petition—each addressing cable faults and human actions used to recover post-fire safe-shutdown capability—directly trace back to decades of NRC concern that such vulnerabilities could undermine the deterministic assurance of reactor safety required by **10 C.F.R. § 50.48** and **Appendix R**. Understanding this history is essential for the Board’s evaluation of Joint Petitioners’ contentions.

The NRC’s early enforcement actions, culminating in the agency’s formal recognition of *hot-short-induced maloperation* and *unverified operator manual actions* as widespread noncompliances, led to the development of the risk-informed, performance-based NFPA-805 rule. These same deterministic issues remain embedded in the Palisades licensing basis today. By revisiting the regulatory path from Appendix R through RIS 2004-03, “*Risk-Informed Approach for Post-Fire Safe-Shutdown Circuit Inspections*” and the 2008 Interim Enforcement Policy to NFPA-805, this section establishes that the three new Holtec September 23 filing, to delay

compliance to Table S-2 items—each involving cable faults, spurious actuations, or manual operator intervention—represent unresolved safety issues of long-standing regulatory significance, not minor scheduling “*administrative*” matters as Holtec submits.

In short, this “*history lesson*” is not retrospective filler; it provides the necessary foundation for understanding why the deterministic safeguards originally mandated under Appendix R must remain enforceable until Palisades fully completes its transition to NFPA-805, and why the Board should view Holtec’s proposed deferrals of these three additional modifications as substantive safety reductions rather than administrative schedule adjustments.

HISTORICAL BACKGROUND: FROM APPENDIX R TO NFPA-805

The modern history of nuclear fire-protection regulation began with the **1975 Browns Ferry fire**, an event that revealed the vulnerability of cable routing and electrical-control systems to fire damage. In response, the NRC codified **10 C.F.R. § 50.48**, requiring each operating plant to establish and maintain a fire-protection program satisfying **General Design Criterion 3** of Appendix A, and the NRC adopted **Appendix R** to Part 50 to ensure that at least one train of equipment necessary for safe shutdown remained free from fire damage.

For facilities such as Palisades—licensed prior to January 1, 1979—Appendix R imposed explicit deterministic requirements for physical separation, fire barriers, and alternate shutdown capability. These requirements were made enforceable through plant-specific license amendments, such as the **1978 NRC Order and License Amendment No. 42** to Palisades, which directed Consumers Power Company to complete twenty-three separate facility modifications and submit corresponding Technical Specification changes. Appendix R thus

established a deterministic baseline: safe-shutdown capability had to be demonstrated through design features, not reliance on operator improvisation.

GROWING CONCERN WITH MANUAL OPERATOR ACTIONS

By the late 1980s and early 1990s, NRC inspections revealed that many licensees had substituted **manual operator actions** for missing or degraded engineered fire-protection features. These actions—mostly involved circuit manipulations or cross-ties performed under adverse post-fire conditions—were not part of the approved Appendix R analyses and, under **10 C.F.R. § 50.59**, could not be introduced without prior NRC review and approval. The Palisades enforcement history illustrates the problem: in 1996 the NRC assessed a **\$50,000 civil penalty** to Consumers power, the Palisades licensee, after inspectors found that:

“the ability to maintain the plant in a safe-shutdown condition...could only have been achieved by significant operator actions, troubleshooting, and repair activities to compensate for design deficiencies.”

That finding reflected a systemic industry problem—continued reliance on manual actions as compensatory measures rather than completion of the deterministic modifications required by Appendix R.

THE “HOT-SHORT” PROBLEM AND NRC-WIDE REEVALUATION

At the same time, operating experience was revealing another unresolved vulnerability: *hot shorts*—fire-induced electrical faults causing spurious actuation or disabling of safety equipment. Beginning in the late 1990s, numerous licensee event reports documented such circuit failures, prompting the NRC to issue **Information Notice 99-17** and eventually

Regulatory Issue Summary 2004-03, Revision 1, titled “*Risk-Informed Approach for Post-Fire*

Safe-Shutdown Circuit Inspections.” In that RIS, the NRC explained that post-fire circuit failures could

“prevent operation or cause maloperation of equipment necessary to achieve and maintain hot shutdown,” arising from “hot shorts, open circuits, or shorts to ground,” and directed inspectors to focus on those vulnerabilities with a “relatively high likelihood of occurrence.”

The RIS also established interim enforcement guidance allowing discretion only when licensees implemented compensatory measures and timely corrective actions. This confirmed that operator actions or risk arguments could not substitute for correction of physical circuit vulnerabilities, and introduced the concept that enforcement discretion was tied to “*substantial progress*.” This issue was especially relevant to Palisades because of Palisades’ widespread use of **PVC-insulated cable**, a thermoplastic material identified by the NRC in RIS 2004-03 as particularly susceptible to *thermoplastic-to-thermoplastic shorting*—a dominant failure mechanism for fire-induced circuit faults under Appendix R.

TRANSITION TO PERFORMANCE-BASED REGULATION AND NFPA-805

The continued discovery of Appendix R non-compliances—especially those involving manual actions and spurious circuit faults—led the Commission to recognize the need for a more structured, risk-informed framework. In 2004 the NRC promulgated § 50.48(c), endorsing the 2001 Edition of NFPA-805, “*Performance-Based Standard for Fire Protection for Light-Water Reactor Electric Generating Plants*.” NFPA-805 retained the deterministic safety principles of Appendix R but allowed licensees to employ probabilistic risk assessment (PRA) to demonstrate equivalent or greater safety, provided that defense-in-depth and safety margin were maintained consistent with Regulatory Guide 1.174, “*An Approach for Using Probabilistic Risk Assessment*

in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis,” and Regulatory Guide 1.205, *“Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants.”* However, use of PRA later, came with a warning. In a 2019 Request for Additional Information (RAI) to Palisades, the NRC staff cautioned that **“meeting the risk guidelines does not constitute meeting defense-in-depth (DID)”**, emphasizing that risk-informed results could not replace the deterministic evaluations required by NFPA-805 and 10 C.F.R. § 50.48(c)

ENFORCEMENT DURING TRANSITION

Recognizing that many licensees would need additional time to complete NFPA-805 transitions, the NRC adopted an **Interim Enforcement Policy** in 2008 allowing temporary discretion where *“substantial progress”* had been made. The Palisades **escalated enforcement discretion granted following the 1996 civil penalty** was set to **expire on December 31, 2008**, unless the license agreed to future demonstration of substantial progress toward full NFPA-805 implementation.

Note for Full Disclosure: As stated in my declaration, I was directly involved, in my capacity as the licensee’s representative, in the 2008–2010 agreements.

— Alan Blind, Joint Petitioner

The NRC’s **December 9, 2008** letter to Entergy (ML083260577) made clear that continued discretion required, among other things, documentation of all fire-protection non-compliances, demonstration of manual-action feasibility, and a schedule for completing fire PRA development. The following year’s **June 20, 2009 progress report** (ML091550665) confirmed that enforcement discretion would remain in place “without interruption, until NRC disposition of the site’s [NFPA-805] license-amendment request.” These requirements embedded the very lessons

learned from earlier enforcement—that manual **operator actions could be used only as verified, temporary compensatory measures, not as long-term substitutes for physical design corrections.** Those same non-conformances persist at Palisades today, pending completion of the three additional License Condition Table S-2 items that Holtec, in its September 23, 2025 Supplemental LAR, and the two carried forward from its June 24, 2025 LAR, now proposes to further defer.

SUMMARY AND CONNECTION TO CURRENT TABLE S-2 ISSUES

This historical record demonstrates that the *smart-hot-short* and *manual-action* issues at Palisades are not isolated technical matters but direct descendants of the same deficiencies that drove the creation of NFPA-805 itself. Each of the five disputed Table S-2 modifications in Holtec’s September 23 submittal was originally included to resolve these longstanding vulnerabilities. Any further deferral or deletion of those items would therefore reopen the very gaps—reliance on human actions and unverified circuit protection—that Appendix R, the 2004 RIS, and the NFPA-805 enforcement framework were designed to close.

Petitioners include this regulatory history to demonstrate that these requirements—established through *Regulatory Issue Summary 2004-03, Revision 1* (ML091550665), the *2008 NRC Enforcement Description and Discretion Letter* (ML083260577), the *2012 NFPA-805 License Amendment Application* (ML12348A455), and the *2015 NRC Safety Evaluation and License Amendment 254* (ML15007A191)—remain integral to Palisades’ current fire-protection licensing basis. Under 10 C.F.R. § 50.48(c), Appendix R, and the NFPA-805 license condition incorporated by Amendment 254, these requirements may not be relaxed or deferred without prior NRC approval supported by a complete deterministic safety evaluation. Any such request

must comply with 10 C.F.R. § 50.90 and include all analyses required by §§ 50.59, 50.12, and 50.92, as well as defense-in-depth and safety-margin evaluations consistent with *Regulatory Guides 1.174* and *1.205*. Holtec’s September 23, 2025 Supplemental LAR fails to meet these established standards for content, scope, and supporting documentation, and therefore remains fundamentally incomplete and deficient for NRC review.

PALISADES’ LEGACY CABLE CONSTRUCTION AND ITS REGULATORY SIGNIFICANCE UNDER NUREG/CR-6850 *THERMOPLASTIC-INSULATED WIRES AND CABLES*

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 4** – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

INTRODUCTION AND CONNECTION TO THE HISTORICAL RECORD

The preceding section established that the NRC’s long history of enforcement concerning hot-short and manual-operator vulnerabilities produced the NFPA-805 framework and that enforcement discretion was conditioned on verified “*substantial progress*.” The same underlying

vulnerability—fire-induced cable failure— **was and is magnified at Palisades, today**, and now applies directly to Holtec’s September 23 LAR submission because of the plant’s original cable construction, which the Current Licensing Basis shows, continues to affect these same uncompleted modifications that Holtec requests to delay.

The NRC’s 1978 licensing and safety evaluations, documented in *Amendment No. 42 to Provisional Operating License DPR-20* (ADAMS Accession No. **ML020800287**, issued September 1, 1978), confirm that Palisades’ electrical systems were installed before adoption of IEEE Standard 383, “*Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations.*” Instead, the plant utilized the earlier IPCEA Standard S-19-81, “*Thermoplastic-Insulated Wires and Cables for the Transmission and Distribution of Electrical Energy,*” which relied on a vertical-flame test typical of polyvinyl chloride (PVC) thermoplastic insulation.

DOCUMENTED NRC BASIS AND LICENSE HISTORY

In 1978, the NRC issued its first 10CFR50 appendix R license amendment and safety evaluation for Palisades, Amendment 42;

“The Commission has issued the enclosed Amendment No. 42 to Provisional Operating License No. DPR-20 for the Palisades Plant. This amendment adds a license condition relating to the completion of facility modifications to improve the fire protection program in response to your submittal dated March 31, 1977, as supplemented by letters dated September 29, 1977, December 15, 1977, May 15, 1978, June 19, 1978, June 29, 1978, June 30, 1978, July 28, 1978, and July 31, 1978.”

In the Safety Evaluation for Amendment 42, ML020800287, the NRC said:

“Although IEEE 383 was not in existence at the time the Palisades electrical cabling was purchased and installed, the cable was specified to meet the vertical flame tests in

*accordance with IPCEA standard S-19-81. While such tests as well as the IEEE 383 tests provide a measure of comparability of fire retardance between various types of cables, **they cannot be considered as indicative of their behavior when found in the configurations in the plant.** In this review, cable insulation has been considered as combustible material. We find that retest to the IEEE 383 procedures and criteria would not provide information that would alter our recommendations or conclusions. Accordingly,”*

These contemporaneous NRC findings confirm that all Palisades electrical cabling pre-dated IEEE Standard 383, “*Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations*,” and was instead qualified only to IPCEA Standard S-19-81, “*Thermoplastic-Insulated Wires and Cables for the Transmission and Distribution of Electrical Energy*.” The NRC explicitly classified this insulation as “*combustible material*.” Amendment No. 42 to Provisional Operating License DPR-20 therefore established the plant’s first enforceable 10 C.F.R. § 50 Appendix R fire-protection license condition—a **requirement that remains the direct regulatory foundation for today’s NFPA-805 license condition now at issue in Holtec’s September 23 LAR.**

NUREG/CR-6850 WITHIN THE PALISADES CURRENT LICENSING BASIS

NUREG/CR-6850 is explicitly incorporated into the **Palisades Current Licensing Basis (CLB)** as the governing fire-probabilistic risk assessment (FPRA) methodology under **10 C.F.R. § 50.48(c)**. This was confirmed in the NRC’s letter titled:

“Palisades Nuclear Plant – Issuance of Amendment No. 269 Regarding Changes to NFPA 805 Modifications and Change to Full Compliance Implementation Date for the Fire Protection Program (EPIDs L-2018-LLA-0296 and L-2019-LLA-0049)”
(ML19198A080)

That official NRC licensing action states:

“NUREG/CR-6850, ‘EPRI/NRC-RES Fire PRA Methodology for Nuclear Power Facilities,’ Volumes 1 and 2, and Supplement 1, September 2005 and September 2010 (Reference 8), (Reference 9), (Reference 10), respectively, present a compendium of methods, data, and tools to perform a fire PRA (FPRA) and develop associated insights.”

This language makes clear that *NUREG/CR-6850* and its Supplement 1 are formally incorporated into the Palisades Current Licensing Basis, CLB, as the controlling analytical standard for evaluating fire-risk and NFPA-805 compliance.

NUREG/CR-6850 TREATMENT OF THERMOPLASTIC CABLE BEHAVIOR

Regarding Thermoplastic cables, NUREG/CR-6850, says:

*“Thermoplastic cables exhibit lower ignition temperatures and higher flame-spread rates than thermoset cables. Analysts should assume cable damage occurs when the predicted surface temperature exceeds approximately 370 °C (700 °F). **Propagation between adjacent cable trays should be assumed for thermoplastic bundles unless plant-specific test data demonstrate otherwise.**”* (NUREG/CR-6850, § 7.5.2.3 – § 7.5.3.1)

In practical terms, *NUREG/CR-6850* is saying that PVC thermoplastic cables soften and melt when exposed to heat, ignite more easily, and allow flames to spread quickly from one bundle to another. Once fire temperatures reach about **370 °C (700 °F)**—which can occur rapidly in a confined electrical area—analysts must assume the insulation will fail and that multiple nearby cables will also be damaged. In short, **when these older PVC cables get hot, they lose their shape, burn, and can carry the fire to other cables**, making them the most fire-vulnerable cable type in a plant like Palisades.

Because Palisades’ original cable insulation is combustible and thermoplastic, this NUREG methodology governs its treatment in both deterministic and probabilistic analyses.

Applying the NUREG/CR-6850 methodology— which requires analysts to assume lower ignition thresholds, higher flame-spread rates, and full propagation for thermoplastic cable populations unless plant-specific data demonstrate otherwise— inherently produces higher conditional core-damage probabilities (CCDPs) and larger contributions to overall Core Damage Frequency (CDF) than would be expected for plants constructed with modern thermoset or flame-retardant cables.

APPLICATION TO THE SEPTEMBER 23, HOLTEC SUPPLEMENTAL LAR REQUEST TO DEFER NFPA-805 TABLE S-2 ITEMS

The five deferred license-condition modifications—S2-13, S2-15, S2-19, S2-23, and S2-37— each correct vulnerabilities arising from these combustible cables: hot-shorts, spurious actuations, raceway fire propagation, and degraded barrier integrity. **Deferring them extends the same conditions that the NRC in 1978 deemed combustible hazards and that NUREG/CR-6850 now identifies as principal CDF contributors.**

REGULATORY SO-WHAT

The NRC’s 1978 safety evaluation finding that Palisades’ cable insulation is “**combustible material,**” combined with its 2019 determination that **NUREG/CR-6850** governs the plant’s Current Licensing Basis (CLB) fire-PRA, establishes a clear line of regulatory continuity. **The same combustible cable population that necessitated Amendment No. 42 in 1978 remains the dominant fire-risk driver in the current NFPA-805 licensing framework.**

Under the *Interim Enforcement Policy* (ADAMS Accession No. **ML083260577**), enforcement discretion applies only where a licensee has demonstrated “*substantial progress*” toward

resolving identified noncompliances. Holtec’s continued deferral of these cable-related modifications fails to satisfy that condition. Because combustible PVC thermoplastic cabling directly increases Core Damage Frequency (CDF) and erodes deterministic defense-in-depth, the NRC lacks the essential technical basis to lawfully evaluate any further extension absent a complete safety evaluation, as required by **10 C.F.R. § 50.90 for the licensee to provide all indispensable information**, demonstrating equivalent protection. Without such an evaluation, Holtec’s application remains procedurally and substantively incomplete, and the continuation of enforcement discretion would be inconsistent with the NRC’s own policy and regulatory requirements.

DEPENDENCE OF COMPLETED NFPA-805 MODIFICATIONS ON THE OPERABILITY OF THE AUXILIARY HOT SHUTDOWN PANEL (AHSOP), ITEM S2-19

In Support of Contentions Two, Five, Six and Seven

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

DEFERRAL OF S2-19 MAKES ALL COMPLETED MODIFICATIONS MOOT

Holtec may assert that its completion of the majority of NFPA-805 Table S-2 modifications—**notwithstanding the five items it now requests to defer or may later seek to eliminate**

through future license amendments—demonstrates substantial progress toward full NFPA-805 compliance. Among these “*completed*” items is the installation of a **diesel-driven auxiliary feedwater (AFW) pump**, which Holtec characterized in its October 2024 ACRS testimony, as an enhancement to defense-in-depth and alternate-shutdown reliability.

However, one of the deferred items identified in Holtec’s September 23, 2025 LAR—Table S2-19—provides the alternate 125-V DC power supply for the Auxiliary Hot Shutdown Panel (AHSOP), designated **EC-150/EC-150A**. Without this redundant, fire-isolated power source, the AHSOP cannot satisfy **Appendix R § III.L**, which requires an independent and protected onsite power train to support alternate-shutdown functions. Consequently, every “*completed*” Table S-2 modification that depends on the AHSOP—including the new diesel-driven auxiliary feedwater (AFW) pump—becomes functionally moot if the AHSOP itself is not fully operable and independently powered. The omission of S2-19 therefore constitutes a direct violation of the deterministic independence required under both **10 C.F.R. Part 50, Appendix R**, and **10 C.F.R. § 50.48(c)** (NFPA-805). Holtec cannot credibly assert that it has made “*substantial progress*” when such essential supporting modifications remain unimplemented and render all other completed Table S2 modifications nonfunctional.

Palisades Alternate Hot Shutdown Panel, AHSOP, Fire Plan Strategies

As the 2012 NFPA-805 Application, ML12348A455, explains:

“PNP safe shutdown analysis considered alternative shutdown in accordance with Appendix R, Sections III.G.3 and III.L... These instances included transfer of control to the primary control station, EC-150/EC-150A (Auxiliary Hot Shutdown Panel and the Auxiliary Hot Shutdown Monitoring Panel) ... Under NFPA 805... EC-150/EC-150A would become the primary control station... if evacuation of the control room is required.”

And

*“When activated, the **AHSOP** provides both **equipment control and process monitoring**, serving as the fire-protected control station for all key safe-shutdown systems:*

“Action may be required to place EC-150/EC-150A Auxiliary Hot Shutdown Panel into service allowing equipment control and process monitoring.”

And

“For fire areas 1 (Control Room) and 2 (Cable Spreading Room), where main control room abandonment is credited, transfer to and control of equipment from the EC-150/EC-150A panels are considered primary control station actions.”

The same 2012 NFPA-805 Application (ML12348A455), Table B-2, “*Nuclear Safety Capability Assessment Methodology Review*”, stated:

“Fire damage to circuits that provide control and power to equipment on the required safe-shutdown path—and any other equipment whose spurious operation or mal-operation could affect shutdown in each fire area—must be evaluated for the effects of a fire in that fire area.

Only one fire at a time is assumed to occur. The extent of fire damage is assumed to be limited by the boundaries of the fire area.

*Given this set of conditions, **it must be assured that one redundant train of equipment capable of achieving hot shutdown is free of fire damage for fires in every plant location.***

To provide this assurance, Appendix R requires that equipment and circuits required for safe shutdown be free of fire damage and that these circuits be designed for the fire-induced effects of a hot short, short-to-ground, and open circuit.

With respect to the electrical distribution system, the issue of breaker coordination must also be addressed.”

This is the same safety capability provided by Table Item S2-19—the very capability Holtec now seeks to defer—relying instead on un-approved manual operator actions as compensatory measures.

AUXILIARY FEEDWATER, AFW, SYSTEM CONTROL AND OPERATION

From the AHSOP, operators control the **Auxiliary Feedwater (AFW)** system, which provides feedwater to the steam generators following a loss of normal feedwater or control-room evacuation.

The 2012 NFPA-805 application states:

“Action may be required to place EC-150, Auxiliary Hot Shutdown Panel, into service to allow control of auxiliary feedwater system components including operation of P-8B, Steam Driven Auxiliary Feedwater Pump, and steam generator flow control of valves CV-0727 and CV-0749.”

It further specifies control capability for the AFW steam-admission valve:

“Action may be required to operate valve CV-0522B from EC-150, Auxiliary Hot Shutdown Panel. Alternate control cable and operating gas supply from a back-up nitrogen supply permits operation of this valve.”

Together, these establish that the Alternate Hot Shutdown Panel, EC-150 provides direct control over:

- **P-8B**, the steam-driven AFW pump;
- **CV-0522B**, the AFW steam-admission valve; and
- **CV-0727** and **CV-0749**, the AFW steam-generator feed-flow control valves.

These functions allow operators to start and modulate feedwater flow to the steam generators and maintain decay-heat removal through natural circulation.

INSTRUMENTATION AND MONITORING FUNCTIONS

The AHSOP includes a full suite of indications and recorders for monitoring both primary- and secondary-system parameters essential for safe shutdown. The NFPA-805 application lists:

“13 CV-0522B, CV-0727, CV-0749, LI-0103A, LI-0757A, LIA-0332A, NI-1/3A, PI-0105A, PIC-0751A, PS-0741A, PS-0741B, PS-0741DD, PTR-0112CL, PTR-0112HL... Action may be required to place EC-150/EC-150A Auxiliary Hot Shutdown Panel into service allowing equipment control and process monitoring.”

This confirms that the AHSOP provides:

- Steam-generator level and pressure indicators (LI, PI);
- Primary-system pressure and temperature recorders (PTR); and
- Pressurizer level and AFW suction-pressure switches (PS).

These meters, recorders and indicators, on the AHSOP, enable operators to verify system response, coordinate AFW flow, and maintain RCS pressure and temperature limits while controlling cooldown from outside the control room at the alternate panel.

FUNCTIONAL ROLE IN HOT SHUTDOWN AND COOLDOWN

The **Auxiliary Feedwater system** provides the principal means of removing residual heat from the reactor during both **hot-shutdown** and **cooldown** conditions. The NFPA-805 record describes the underlying process:

“Hot shutdown conditions can be maintained via natural circulation of the RCS through the steam generators. The cooldown rate must be controlled to prevent the formation of a bubble in the reactor head. Therefore, feedwater (either auxiliary or emergency) flow rates as well as steam release must be controlled.”

“Natural circulation provides the ability to cool down the primary coolant system. Heat is removed through auxiliary feedwater supplied to one or both steam generators.”

Once AFW flow is established, operators from the AHSOP regulate heat removal by adjusting **SG feed valves (CV-0727/CV-0749)** and by controlling **steam discharge through the steam-generator Power-Operated Relief Valves (PORVs)** or **atmospheric dump valves**.

Pressure on the primary side is simultaneously controlled by the **pressurizer PORVs or auxiliary spray valve**, as described in the same record:

“Pressure control is maintained by the use of a charging pump and pressurizer PORVs or auxiliary spray valve.”

LONG-TERM COOLING AND WATER SUPPLY

For extended operation, operators can realign AFW suction to alternate water sources:

“Operators can locally align the fire protection system (FPS) to the suction of AFW pumps P-8A and P-8B or the Service Water System (SWS) may be aligned to the suction of AFW pump P-8C, by manually opening valves. ... The water source for both the FPS and SWS is Lake Michigan which is an unlimited water supply.”

This alignment ensures an effectively **unlimited makeup source**, satisfying **Appendix R § III.L**’s requirement for maintaining safe-shutdown capability for at least 72 hours without offsite power.

DETERMINISTIC DEPENDENCE AND LICENSING IMPLICATIONS

In combination, these citations demonstrate that the Alternate Hot Shutdown Panel, **AHSOP (EC-150/EC-150A)** is the **central enabling element, the brain**, of Palisades’ alternate-shutdown design. Every completed NFPA-805 modification—most notably the **diesel-driven AFW pump**—depends upon the AHSOP remaining powered, habitable, functional, and isolated from fire damage. Without restoration of its **redundant 125-V DC supply** (Table S2-19), operators would lose the ability to control AFW flow, regulate SG PORVs, or monitor system parameters, rendering the plant incapable of meeting **Appendix R § III.L and 10 C.F.R. § 50.48(c)**.

Thus, while Holtec may claim substantial progress through the completion of other Table S-2 items, those accomplishments are **illusory and moot all other progress to complete Table S2 modifications** absent full operability of the AHSOP and its independent power source, both of which are indispensable for sustaining the NRC’s prior **reasonable-assurance** finding for safe-shutdown capability.

DEPENDENCE OF COMPLETED NFPA-805 MODIFICATIONS ON THE OPERABILITY OF THE TURBINE-BUILDING FRESH-AIR FANS (V-210), ITEM S2-37

In Support of Contentions Two, Five, Six and Seven

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

DEFERRAL OF S2-37 UNDERMINES POST-FIRE SAFE-SHUTDOWN CAPABILITY

Holtec’s September 23, 2025 LAR lists Table S2-37, “*Turbine Building Fresh-Air Fan Modification,*” among the deferred NFPA-805 items; however, in violation of the content requirements of **10 C.F.R. § 50.92**, it provides no supporting analysis of the modification’s impact on post-fire operator habitability, access/egress conditions, or the performance of the turbine building ventilation system.

Historically, Entergy tracked this item as **S2-39**, “*Turbine Building Fresh-Air Fan V-210 Fire*

Rating,” with the corrective action to “perform walkdown and evaluate the fire rating of the supporting structure for fan V-210.”

When the NRC issued **License Amendment 269** (ML19198A080), it incorporated this modification as **S2-37**, making it an enforceable license condition under 10 C.F.R. § 50.48(c).

The NFPA-805 transition record identifies the V-210 fan and its supporting structure as safety-related for maintaining post-fire habitability and for limiting smoke and heat spread through ventilation ducts.

As summarized in the 2012 NFPA-805 Application (ML12348A455), the plant’s fire-protection design must “*prevent exposure fires from defeating the ability to achieve and maintain post-fire safe-shutdown.*” That protection explicitly includes systems relied upon to “*maintain habitability/air quality for operator actions and to limit secondary fire spread via ventilation ducts.*” Because the Turbine-Building Fresh-Air Fans serve this credited function, their fire-rated supports and isolation features are deterministically required to meet Appendix R § III.O and NFPA-805 § 3.11. Holtec does not meet this requirement.

FUNCTIONAL ROLE IN ALTERNATE-SHUTDOWN OPERATIONS

The Turbine-Building ventilation system provides the only means to maintain a breathable, temperature-controlled environment for operators using the **Auxiliary Hot Shutdown Panel (AHSOP, EC-150/EC-150A)** after control-room evacuation.

Without the V-210 fan, smoke and heat accumulation in the turbine and cable-spreading areas would rapidly make these access and equipment zones uninhabitable, defeating manual actions necessary to control Auxiliary Feedwater (AFW) valves, monitor parameters, and perform recovery steps described in the NFPA-805 transition analysis.

Thus, the loss or non-qualification of the fan's fire-rated support and power circuits breaks the chain of assumptions underlying all Appendix R § III.L evaluations for control-room abandonment.

DETERMINISTIC DEPENDENCE AND LICENSING IMPLICATIONS

As with S2-19, the operability of S2-37 is a foundational **defense-in-depth (DID)** safeguard—protecting both credited equipment and operator performance. Accordingly, Holtec is required to submit an updated Defense-In-Depth, DID, evaluation as part of any **License Amendment Request** under **10 C.F.R. § 50.90** and **Regulatory Guide 1.174**, demonstrating that defense-in-depth and safety margins are preserved. Holtec has not provided this required analysis. Holtec's September 23, 2025 filing remains flawed.

Palisades' fire-rated structure and cabling ensure that the alternate-shutdown path remains viable by preserving habitability, visibility, and access for operators performing manual actions.

Deferral of this modification means that ventilation reliability under post-fire conditions is unverified, violating Appendix R § III.O's requirement for environmental control and the NFPA-805 Chapter 3 fundamental element for "*Passive Fire Protection Features.*"

Without this protection, every other completed Table S-2 modification that depends on operator actions in the turbine or auxiliary areas—such as control of AFW flow, steam-generator venting, or local breaker operations—becomes functionally moot, since the environment could no longer support habitat for sustained safe-shutdown actions.

Therefore, Holtec's omission of any Defense-in-Depth or safety-margin analysis for S2-37 renders its LAR incomplete under 10 C.F.R. § 50.90 and non-compliant with the deterministic assurance requirements of both Appendix R and NFPA-805.

HOLTEC’S INTRODUCTION OF NON-REGULATORY TERMINOLOGY: “COMPLIANCE” AND “RISK-REDUCTION” MODIFICATIONS

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

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HOLTEC’S INTRODUCTION OF NON-REGULATORY TERMINOLOGY:

“COMPLIANCE” AND “RISK-REDUCTION” MODIFICATIONS

In its September 23, 2025 Supplemental License Amendment Request, Holtec Palisades introduced for the first time the terms “*compliance modifications*” and “*risk-reduction modifications*” to describe certain Table S-2 items. Holtec states:

“Holtec Palisades expects to complete the remaining NFPA 805 modifications prior to the restart of PNP in the fourth Quarter of 2025. Five modifications identified as having minimal to no risk benefit during continued, on-going planning and assessment of plant changes are not expected to be completed prior to restart. Two of these modifications are identified primarily as risk-reduction modifications and three are identified primarily as compliance modifications. The compliance modifications are intended to be completed prior to the revised full compliance date. The risk-reduction modifications are intended to

be completed prior to the revised full compliance date or otherwise addressed through additional LARs and NRC approval processes.” (Holtec Supplemental LAR, Sept. 30, 2025, at 3–4).

NFPA-805 DOES NOT USE COMPLIANCE” OR “RISK-REDUCTION”

MODIFICATIONS

Neither the NFPA-805 standard itself (as incorporated into NRC regulations at 10 C.F.R. § 50.48(c)) nor NRC’s endorsed guidance (e.g., NRC letter ML16015A416, “*Content of License Amendment Requests to Adopt NFPA-805*”, recognizes or defines the terms “*compliance modifications*” or “*risk-reduction modifications*.” Past Palisades NFPA-805 amendments (2016, 2018, 2019) likewise did not use these categories. Entergy’s 2018 NFPA-805 submittals—which form the basis for the current license condition—requested cancellation of six modifications and clarification of ten others, but did so only through a complete § 50.90 submittal supported by updated Attachments M, S, and W and explicit defense-in-depth and safety-margin evaluations. Likewise, Amendment 269 in 2019 reflected those changes only after NRC issued a safety evaluation explicitly addressing each cancelled modification.

PRIOR HOLTEC JUNE 2025 SUBMITTALS DID NOT USE COMPLIANCE” OR “RISK-REDUCTION” MODIFICATIONS

Holtec itself did not use these terms in its June 24, 2025 LAR, the submittal noticed in the July Federal Register and the defining document for the scope of this proceeding. In June, Holtec referred to two specific modifications (S2-13 and S2-15) as having reduced PRA risk significance, but did not label them “*risk-reduction*” or “*compliance*” modifications.

HOLTEC IN ITS SEPTEMBER SUPPLEMENTAL LAR, NOW INTRODUCES COMPLIANCE” AND “RISK-REDUCTION” MODIFICATIONS

Only in its September 23, 2025 supplement—now the subject of this Supplemental Petition—did Holtec introduce this novel terminology.

By contrast to Entergy’s precedent and Holtec’s own June filing, the September supplement uses new labels to suggest that some modifications may be deferred or eliminated in the future as “compliance” items and others potentially eliminated as “risk-reduction” items, but without submitting the removal-specific safety evaluations, revised Attachments M/S/W, or defense-in-depth analyses that NRC guidance makes indispensable.

Accordingly, the mere use of these new terms does not alter Holtec’s obligations. Any modification already incorporated into Palisades’ NFPA-805 license condition (Amendments 254, 265, and 269) may only be deferred, revised, or deleted through a complete § 50.90 license amendment request that satisfies NRC’s published guidance. The September 23, 2025 submittal does not contain these elements. Therefore, regardless of the terminology Holtec has now adopted, the application remains incomplete under § 50.90, and NRC cannot make the findings required by § 50.92 until Holtec resubmits a fully documented request consistent with its existing NFPA-805 licensing basis.

A DISTINCTION WITHOUT A DIFFERENCE

The 2019 Palisades RAI and Entergy’s subsequent response establish that the NRC applies the **same submittal requirements** to *all* proposed NFPA-805 license condition changes, regardless of how the licensee informally characterizes a modification. In that exchange, the NRC required Entergy to provide **complete and updated analyses, Attachments S and W, and explicit**

defense-in-depth (DID) and safety-margin evaluations for every affected Table S-2 item, including those Entergy considered to have low or minimal risk significance. The NRC RAI said:

“Based on the information provided in the LAR, it is unclear whether the clarifications related to modification items S2-15 and S2-21 have been included in the PRA and the updated Attachment W. If the clarifications for S2-15 and S2-21 are not included in the PRA, provide a justification for this exclusion. Absent a justification, provide an updated Attachment W that incorporates these changes, including updated total risk and change-in-risk values and compare the risk with Regulatory Guide 1.174 guidelines.”

(NRC RAI to Entergy, Apr. 29 2019, ML19122A485, at 3.)

Entergy complied and replied to the RAI by updating its fire PRA and Attachment W and by reaffirming the three-tier DID structure required under NFPA-805 § 4.2.4.2.

This precedent sets the governing expectation for all future NFPA-805 amendments. Nothing in the 2019 RAI, Entergy’s response (ML19149A302), or the ensuing 2019 Safety Evaluation creates or recognizes any regulatory distinction between “*compliance*” and “*risk-reduction*” modifications. Consequently, the terminology introduced for the first time in Holtec’s September 23, 2025 supplement has **no regulatory meaning**. Under **10 C.F.R. § 50.90**—which requires that an applicant “fully describe the changes desired, and shall follow as far as applicable the form prescribed for original applications”—Holtec remains obligated to submit the same supporting documentation (Attachments M, S, and W, with complete DID and safety-margin analyses) for every proposed Table S-2 change. Its invention of non-regulatory categories does not lessen that obligation or create a new review pathway.

FAILURE TO PRESERVE THE REGULATORY BASIS FOR THE NRC’S “REASONABLE ASSURANCE” FINDING

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

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NRC NFPA-805 2015 FINDING OF “REASONABLE ASSURANCE

The NRC’s February 27, 2015 Safety Evaluation Report (SER) approving Amendment 254 established *reasonable assurance* of public health and safety under the mandatory standard of **10 C.F.R. § 50.92(a)**. That finding was expressly conditioned on the completion of the Table S-2 “*Plant Modifications Committed*” and the maintenance of compensatory measures **only until** those modifications were complete by a certain time. In the words of the SER:

“There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission’s regulations.”

“The licensee shall implement the modifications to its facility, as described in Table S-2, ‘Plant Modifications Committed,’ ... to complete the transition to full compliance with 10 CFR 50.48(c) before the end of the second full operating cycle after NRC approval. The

licensee shall maintain appropriate compensatory measures in place until completion of these modifications.”

These provisions demonstrate that the NRC’s finding of “*reasonable assurance*” was not an open-ended or standing authorization—it was **anchored to a date-certain completion of the Table S-2 modifications**, which together formed the technical basis for the NRC’s confidence in Palisades’ transition to NFPA-805 compliance.

HOLTEC’S SEPTEMBER 23 2025 LAR, CHANGES ARE “ADMINISTRATIVE”

Holtec’s September 23, 2025 License Amendment Request (LAR) seeks to defer five of those same Table S-2 modifications, yet it provides no updated defense-in-depth evaluation, safety-margin assessment, risk analysis, or the required supporting tables—each explained elsewhere in this petition—needed for the NRC staff to make a new and revised reasonable-assurance determination. Instead, Holtec characterizes the deferrals as “*administrative*” in nature—an undefined term with no basis in § 50.90, § 50.92, or the NFPA-805 rule. Such conclusory labeling does not satisfy the requirement for the applicant to supply all **indispensable information** necessary for NRC staff to perform its independent evaluation.

REGULATORY IMPACT

The NRC’s 2015 SER provided a reasoned safety conclusion only because the underlying analyses and license condition collectively demonstrated that Palisades would, by a date certain, complete all Table S-2 modifications credited for defense-in-depth and safety margin. By contrast, Holtec’s current filing omits the information needed for NRC to determine whether the regulatory foundation for that finding remains valid. Under **10 C.F.R. § 50.90**, an application

that fails to supply such indispensable information is procedurally incomplete and cannot support a new finding under § 50.92(a).

Accordingly, Holtec’s substitution of an “*administrative*” rationale for a required “*reasonable-assurance*” finding represents a fundamental departure from both the regulatory framework and the evidentiary standard of the 2015 approval. The NRC cannot lawfully rely on that prior finding to justify any extension or deferral absent new, complete, and technically defensible information demonstrating that the original conditions for reasonable assurance continue to be met.

INABILITY OF NRC STAFF OR JOINT PETITIONERS TO REVIEW HOLTEC’S CATEGORIZATION

Holtec’s September 23, 2025 Supplemental LAR introduced novel terms to divide Table S-2 items into “compliance modifications” and “risk-reduction modifications,” yet provided no analysis, attachments, or supporting documentation to explain the basis for this categorization. Without such documentation, the filing is procedurally incomplete under 10 C.F.R. § 50.90. The absence of this analysis has two critical consequences:

1. NRC Staff cannot conduct its safety review.

NRC Staff is obligated to review the technical, regulatory, and risk evaluations that support any proposed change to NFPA-805 license conditions. Past Palisades amendments (2016, 2018, 2019) only proceeded after the licensee submitted updated Attachments M, S, and W, along with explicit defense-in-depth and safety margin evaluations, so that NRC could issue a safety evaluation. By omitting these required

elements, Holtec has left Staff without the material necessary to complete its review or to issue the required findings under 10 C.F.R. § 50.92.

2. Joint Petitioners cannot meaningfully participate.

Under 10 C.F.R. Part 2, petitioners are entitled to review the licensee’s basis for any license amendment request in order to raise genuine disputes with the application. Here, Holtec’s new terminology has been presented without supporting analysis, PRA updates, or DID evaluations. As a result, Joint Petitioners are unable to evaluate Holtec’s claimed basis for categorizing Table S-2 modifications as either “compliance” or “risk-reduction,” and cannot determine whether Holtec seeks merely to extend completion dates or to eliminate certain modifications altogether. This lack of transparency denies both the public and the Board the ability to engage with the application on its merits.

Accordingly, the Board should recognize that the September 23, 2025 supplemental LAR is facially incomplete and cannot be accepted for review. Until Holtec resubmits its request with the required supporting documentation—consistent with NRC guidance (ML16015A416) and prior Palisades licensing precedent—neither NRC Staff nor Joint Petitioners can meaningfully evaluate the proposal as revised in Holtec’s September 23, 2025 Supplemental LAR.

HOLTEC’S IMPROPER FRAMING OF LICENSE CONDITION OBLIGATIONS AS A SCHEDULING ISSUE

In Support of Contentions One, Two, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

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Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

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HOLTEC’S SCHEDULING REQUIREMENTS AND THE OPERATIVE ISSUE

NFPA-805 transition license conditions—first imposed through Amendments 254, 265, and 269—are binding safety requirements incorporated directly into the Palisades operating license.

They cannot lawfully be deferred or modified merely to accommodate a corporate restart timeline.

Yet Holtec’s June 24, 2025 License Amendment Request opens its Technical Evaluation with the following statement:

“Due to the planned restart of the Palisades Nuclear Plant in 2025, Holtec Palisades is proposing a revision of the full compliance date for the fire protection program transition license condition to allow an extension for the implementation of the remaining modifications identified in Table S2 that are necessary to achieve full compliance with 10 CFR 50.48(c).” (Holtec LAR, June 24, 2025, Enclosure at 2.)

This declaration—*“Due to the planned restart of the Palisades Nuclear Plant in 2025”*—is the operative issue before the Board. It transforms the purpose of Holtec’s request from a routine completion of NFPA-805 modifications into an effort to **extend enforceable fire-protection license conditions specifically to support a scheduled reactor startup in 2025**. By linking the license-condition extension to a commercial restart date, Holtec effectively seeks NRC approval

to operate without completing safety requirements that the NRC has already found essential to demonstrate full compliance with 10 CFR 50.48(c).

THE REGULATORY CONSEQUENCE

NFPA-805 transition license conditions are not internal project milestones; they are regulatory commitments that define the plant’s fire-protection licensing basis. NRC’s 2015 Safety Evaluation (ML15007A191) approving Amendment 254 made clear that each Table S-2 modification represents a required plant change and that compensatory measures must remain in place *“until completion of these modifications.”* NRC enforcement correspondence (ML083260577) further specifies that any continuation of discretion or delay is permissible **only if the licensee demonstrates “substantial progress”** toward full compliance and only **until NRC issues a formal license amendment**. No precedent authorizes an open-ended extension to align with a restart schedule.

SCHEDULE IS NOT A SAFETY BASIS

Despite using its startup goals as the principal justification, Holtec’s September 23, 2025 filing provides no deterministic, defense-in-depth, or § 50.59 evaluations, nor any updated Attachments M, S, or W as required by NRC guidance (ML16015A416) to support a license-condition revision. Instead, Holtec substitutes its commercial timetable—*“due to the planned restart”*—as the basis for deferral.

This schedule-based rationale falls entirely outside the Board’s adjudicatory authority, as the Commission has never delegated to the ASLB the power to adjust compliance deadlines based on project management or economic goals. **What is within the Board’s authority—and what this petition properly places before it—is Holtec’s failure to meet the submission and content**

requirements of § 50.90 itself. That omission is not a matter of scheduling discretion but a matter of legal sufficiency, squarely within the Board’s jurisdiction to determine whether the application contains the information necessary for the NRC to make its required findings under § 50.92.

Accordingly, the Board should not treat Holtec’s “*planned restart*” as a valid regulatory basis for relief, but rather as evidence that the application fails to satisfy the fundamental submission requirements of **10 C.F.R. § 50.90**. The operative issue before the Board is not whether Holtec’s schedule warrants sympathy, but whether its filing contains the technical and regulatory information necessary for the NRC to make its required safety findings. **License-condition obligations established by Amendments 254, 265, and 269 remain binding until revised through a complete and properly justified § 50.90 amendment—not through a schedule-driven request to defer compliance.**

STATEMENTS TO CONGRESS

This conclusion is consistent with testimony provided to Congress. During the September 3, 2025 U.S. Senate Committee on Environment and Public Works oversight hearing, NRC Chairman David Wright confirmed that the Commission “*will not approve a reactor application without sufficient safety information, regardless of statutory timetable*” (Official Video Record at 1:47:00). Petitioners rely on this clear statement of policy in their consolidated filing to underscore that license condition compliance cannot be treated as a mere scheduling matter. Holtec’s June 24, 2025 LAR does exactly that, and therefore fails on its face.

HOLTEC’S CLAIMED “SUPPLY CHAIN” DELAYS ARE CONTRADICTED BY ITS OWN PUBLIC STATEMENTS

In Support of Contentions One, Two, Four, Five, Six and Seven

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***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

HOLTEC’S SUPPLY CHAIN STATEMENT

In its September 23, 2025 Supplemental License Amendment Request, Holtec asserts that unspecified “*supply-chain challenges*” have prevented timely completion of several required NFPA-805 Table S-2 fire-protection modifications. Holtec provides no documentation identifying which components are unavailable, the duration of any shortages, or evidence showing that procurement delays are beyond its control, all essential to support a “substantial progress” claim.

This generalized claim is inconsistent with NRC regulatory expectations under **10 C.F.R. § 50.48(c)(3)(i)** and **SECY-15-0065**, both of which require a complete and demonstrable showing of progress toward compliance when seeking to defer implementation of NFPA-805 license-condition modifications. It is also inconsistent with Holtec’s own contemporaneous public

statements describing extensive ongoing work across virtually every plant system and intentions to complete all safety requirements.

BOARD ALERT: MATERIAL INCONSISTENCY UNDERMINING CONFIDENCE IN THE LAR RECORD

Petitioners respectfully alert the Board that Holtec’s “*supply-chain*” justification, offered to explain its failure to complete required fire-protection modifications, stands in stark contrast to the company’s public narrative of schedule confidence, resource abundance, and broad-scope progress.

On **October 4, 2025**, the *Herald-Palladium*, a local newsprint paper, published an account of the Palisades restart effort, quoting senior Holtec officials and describing the breadth of ongoing modifications, meeting all safety requirements, and construction activity at the site.

Herald-Palladium, “Palisades Power Plant Nears Final Phase of Repowering Effort,” Oct. 4, 2025: https://www.heraldpalladium.com/southhaventribune/localnews/palisades-power-plant-nears-final-phase-of-repowering-effort/article_028ac85e-a92e-5df9-8fc6-c230ab1f5532.html

Holtec’s communications manager, **Nick Culp**, is quoted as stating that the plant’s “*restart remains on schedule and below budget,*” with completion of “*major projects that are a work in progress*” expected before year-end. The same report describes installation of turbine rotors, inspection and replacement work on non-nuclear systems, reassembly of generators, deep cleaning of secondary systems, procurement of new reactor fuel, and the presence of over **1,200 contractors and vendors from fifteen labor unions performing on-site specialty work**. Culp

further stated that Palisades was already “*operating and behaving as if [it were] a power plant,*” emphasizing that “*the work needs to be done correctly ... before [restart] can happen.*”

THESE STATEMENTS DIRECTLY CONTRADICT HOLTEC’S SEPTEMBER 23

These statements directly contradict Holtec’s September 23 Supplemental LAR claim that “*supply-chain*” constraints prevent completion of fire-protection modifications. The ongoing procurement and installation of major turbine, generator, and fuel components—each far more complex and logistically demanding than the relatively modest electrical-circuit isolation and routing changes required by Table S-2—should demonstrate that material availability is not the limiting factor. Moreover, Holtec’s submittal fails to describe the specific work activities or components comprising the deferred NFPA-805 modifications. Because the LAR omits this information, Petitioners rely on the **documented scope of work contained in the Current Licensing Basis (CLB)**—including the Table S-2 commitments approved by Amendment 254—to define what remains incomplete. Within that established scope, no technical or procurement constraint appears that would prevent completion. This record suggests that the **factual representations within Holtec’s LAR** are inconsistent with its own public representations of project capability and progress. This inconsistency goes directly to the **level of confidence** the Board can place in Holtec’s asserted justifications and factual support.

REGULATORY EVALUATION: HOLTEC’S SUPPLY CHAIN DELAYS

Under **10 C.F.R. § 50.48(c)(3)(i)** and **SECY-15-0065 (ML16015A416)**, a licensee seeking to defer or modify an NFPA-805 license-condition obligation must provide a clear, evidence-based justification, including:

- Identification of affected components;
- Documentation of procurement status; and
- Impact analyses showing continued compliance with defense-in-depth and safety-margin requirements.

Holtec’s generalized “*supply-chain*” assertion meets none of these standards and fails the “*substantial progress*” test established by the NRC’s 2008 enforcement-discretion policy (ML083260577), which requires documentation of physical modifications performed, compensatory measures maintained, and milestone-based schedules demonstrating continued progress toward full compliance.

Accordingly, the cited news account that quotes Holtec senior management, provides corroborative evidence that Holtec’s September 23, 2025 submittal does not demonstrate that the claimed delays are unavoidable or externally driven, but instead reflects a possible internal project prioritization that resulted in deferral of required safety modifications without providing the documentation necessary to substantiate the claim. Had Holtec supplied the detailed component, schedule, and procurement information required under 10 C.F.R. § 50.48(c) and § 50.90, there would be no reason for this inference. Holtec, in its LAR provided no information to show the facts of why it has not been able to procure the necessary materials and complete the modifications. The Board should view this inconsistency as further evidence that Holtec’s Supplemental LAR is **procedurally incomplete** under **10 C.F.R. § 50.90** and **substantively deficient** under **10 C.F.R. § 50.48(c)**, reinforcing Petitioners’ **Contentions**.

ADJUDICATORY RELEVANCE OF HOLTEC’S “SUPPLY CHAIN” CLAIM

In this proceeding, Holtec’s invocation of “*supply-chain challenges*” is not a mere explanatory statement—it constitutes the **central factual and legal basis** for its request to revise a binding license condition under **10 C.F.R. § 50.48(c)**. The Board must determine whether Holtec’s LAR provides the **information necessary to justify** that request and whether it **satisfies the completeness requirements of § 50.90** for NRC staff to evaluate the “**substantial progress**” **criteria** governing continued enforcement discretion.

Because Holtec’s asserted constraint is unsupported by any documentation of supply-chain specifics—and is contradicted by its own public statements claiming abundant resources, active procurement, and confidence in meeting its schedule—the **Board should afford little weight to this justification**. The Board has no authority to validate or oversee Holtec’s internal project logistics; its authority is limited to determining whether the application satisfies the submission and content requirements of 10 C.F.R. § 50.90. Absent a documented and verifiable showing that the claimed supply chain constraints are genuine and beyond Holtec’s control, the Board should deem the justification legally insufficient and the LAR incomplete as a matter of law—failing to provide the essential information as per §50.90, NRC Staff must have to make the required safety findings under § 50.92.

This inconsistency between Holtec’s factual justifications and its public representations further demonstrates that the September 23 LAR fails the § 50.90 completeness standard.

SCOPE AND REGULATORY SIGNIFICANCE OF HOLTEC'S ANTICIPATED FACILITY MODIFICATIONS, PROVIDED TO NRC TECHNICAL SPECIFICATION REVIEWERS

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

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INTRODUCTION AND FACTUAL BASIS

Holtec's April 2024 RAI response concerning its Technical Specification LAR approval, Enclosure 3, "*Changes to the Facility That Are Anticipated to Support the Transition to Power Operations*" (ML24354A111), discloses an extensive list of planned design changes intended to prepare the Palisades Nuclear Plant for restart.

These include, but are not limited to:

- Replacement of transformers, switchgear, and power-supply alignments;
- Service-water and component-cooling-water system modifications;
- Diesel-generator exhaust and ventilation upgrades;
- Control-room panel and instrumentation replacements;

- Digital control and protection-system installations; and
- Building ventilation and security-system changes.

Collectively, these modifications represent a plant-wide reconfiguration of systems and cable routings that are integral to fire-area boundaries and post-fire safe-shutdown capability. Yet none of these changes were referenced or evaluated as “screened out” in Holtec’s June 24 or September 23, 2025 NFPA-805 License Amendment Requests (LARs).

Holtec has justified its proposal to defer multiple NFPA-805 Table S-2 license-condition modifications by citing “*supply-chain challenges*.” However, many of the components identified in the April 2024 restart-modification list—diesel auxiliaries, transformers, control systems, and switchgear—depend on the same supply chains.

If these items can be procured and installed for restart, the basis for deferring NFPA-805 safety modifications collapses; if supply-chain limitations truly remain, then the restart modifications themselves should also be delayed. Either scenario exposes a regulatory inconsistency that must be resolved through the required fire-protection and safe-shutdown evaluations that accompany any license-condition change.

REGULATORY FRAMEWORK FOR CONFIGURATION CONTROL OF FACILITY MODIFICATIONS UPON THE FIRE PROTECTION PROGRAM

Under **10 C.F.R. § 50.48(a)**, every nuclear power plant must maintain a fire-protection program that ensures the capability to achieve and maintain safe shutdown in the event of a fire. Section 50.48(c) extends this requirement to plants transitioning to the **NFPA 805** framework, mandating that any change to plant configuration be evaluated to confirm that the revised design continues to meet both deterministic and risk-informed acceptance criteria.

These evaluations form part of the plant's **configuration-control process**, which is an explicit element of the current licensing basis under **10 C.F.R. § 54.3(a)**.

In addition, **10 C.F.R. Part 50, Appendix R** establishes the deterministic safe-shutdown features that must be preserved for facilities licensed before 1979. Appendix R, Sections III.G and III.L, require that fire-related modifications maintain separation of redundant trains, protect safe-shutdown equipment and cables, ensure feasible operator actions, and preserve alternate-shutdown capability. **Regulatory Guide 1.75**, *Physical Separation of Electric Cables and Equipment*, and **Generic Letter 86-10**, *Implementation of Fire Protection Requirements*, further define the analytical and documentation steps necessary to demonstrate continued compliance when any facility modification of control circuits, raceways, or power supplies are modified.

DETERMINISTIC EVALUATION REQUIREMENTS

Consistent with these regulations and guidance, any proposed facility modification must undergo a documented evaluation to determine whether it affects:

1. Safe-shutdown systems and components credited under Appendix R § III.G;
2. **Cable routing and separation** required to maintain independence of redundant shutdown trains;
3. **Power-supply coordination and isolation devices**, to prevent spurious operation or train interaction;
4. **Manual operator actions** and their timed feasibility under post-fire conditions (Appendix R § III.G.2; NRC Information Notice 92-18);
5. **Emergency lighting** and access/egress paths as required by Appendix R § III.J; and
6. **Alternate or remote shutdown** capability (Appendix R § III.L).

If a change is found to alter or challenge these features, the licensee must update the plant's **Fire Hazards Analysis (FHA)** and **Safe-Shutdown Analysis** and, where appropriate, obtain prior NRC approval under **10 C.F.R. § 50.90** before implementation.

These reviews provide the deterministic basis for maintaining fire-protection and safe-shutdown integrity across the plant's lifecycle and ensure that every modification remains bounded by the licensing basis.

INTEGRATION INTO NFPA-805 LICENSE AMENDMENTS

The same configuration-control results are engineering inputs to the required technical foundation for any NFPA-805 license-amendment request. Holtec did not do this for its September 23 Supplemental LAR filing.

Regulatory Guide 1.205, § C.3.2, and NRC Staff Guidance ML16015A416, *“Recommended Content for License Amendment Requests That Seek Changes to License Conditions Established in Amendments to Adopt NFPA 805,”* both require that a licensee proposing to alter or delete fire-protection license-condition items—such as Entergy did in its 2018 LAR establishing the Fire Protection License Condition Table S-2—include updated versions of:

- **Attachment M** – revised license-condition text;
- **Attachment S** – the current list of committed plant modifications; and
- **Attachment W** – updated fire-PRA change-in-risk tables and associated Defense-in-Depth (DID) and Safety-Margin evaluations.

These attachments collectively demonstrate, among other engineering requirements, that all plant modifications completed or underway since the previous NFPA-805 approval have been reviewed, either screened out as having no impact or incorporated into updated deterministic and

risk-informed analyses.

Even if a modification is determined to have “no effect,” that determination itself must be documented in the updated attachments so the NRC can verify that configuration control has been maintained and that the as-built, as-operated plant remains bounded by the current licensing basis. **Holtec did neither—failing to include the required attachments or to address prior facility-modification screening results in its proposed revision to the Fire Protection License Condition Table S-2.**

SIGNIFICANCE TO THE PALISADES RECORD

The April 2024 list of Palisades restart modifications—transformers, switchgear, control-room panels, digital controls, ventilation systems, and other safety-related infrastructure—intersects directly with fire-area boundaries, electrical separation, and safe-shutdown systems governed by Appendix R and NFPA 805.

Under NRC regulations and guidance, each of these modifications would trigger a documented fire-protection and safe-shutdown evaluation, the results of which would be carried forward into any LAR proposing to revise fire-protection license conditions.

Holtec’s September 23, 2025 LAR, however, includes none of the required evaluations, attachments, or statements confirming that configuration-control reviews were performed.

As a result, neither the NRC nor the public can determine whether the as-modified plant configuration remains consistent with the fire-protection and safe-shutdown analyses that formed the basis for the 2018 licensing conditions.

This omission violates the **completeness requirement of 10 C.F.R. § 50.90**, fails to demonstrate the “substantial progress” necessary to maintain enforcement discretion under License Condition

2.C.(3), and deprives the NRC of the factual foundation required to make findings under § 50.92 that defense-in-depth and safety margin are preserved.

CONCLUSION

Publicly available NRC regulations and guidance—§ 50.48, Appendix R, Regulatory Guides 1.205 and 1.75, Generic Letter 86-10, and NRC Staff Guidance ML16015A416, and Entergy’s 2018 LAR setting the form to be followed—together define a clear, enforceable configuration-control process requiring deterministic review of any facility modification that could affect fire protection or safe-shutdown capability.

Holtec’s LAR provides no evidence that such evaluations were performed or incorporated.

Its omission of the required supporting analyses, attachments, and configuration-control documentation renders the September 23, 2025 LAR **procedurally incomplete** under § 50.90 and **insufficient** to satisfy the NRC’s standards for continued enforcement discretion and safe-shutdown assurance.

HOLTEC’S CONTINUING PATTERN OF UNFULFILLED COMMITMENTS DESPITE DEMONSTRATED RESOURCES; WORKING-HOURS RELIEF REQUEST, NO “SUBSTANTIAL PROGRESS: FOCUS ON RESTART, NOT ON LICENSE COMMITMENTS”

In Support of Contentions One, Two, Four, Five, Six and Seven

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LEGAL BASIS FOR BOARD CONSIDERATION

Despite ample access to time, labor, and material resources, Holtec’s filings in this proceeding remain **procedurally incomplete under 10 C.F.R. § 50.90**, as they do not provide the indispensable information required by **§ 50.92** for NRC Staff to evaluate whether the licensee has made the “*substantial progress*” necessary to justify continued reliance on enforcement discretion. The Atomic Safety and Licensing Board (ASLB) cannot itself make the substantive § 50.92 determination, but it can and should find that Holtec’s application lacks the necessary information for NRC Staff to do so.

INTRODUCTION TO THE NEW SUPPORTING INFORMATION

This section introduces new, material information demonstrating that Holtec had both the **means and opportunity** to make measurable progress on its deferred NFPA-805 fire-protection modifications. As discussed elsewhere in this petition, **Holtec’s October 2024 testimony before the Advisory Committee on Reactor Safeguards (ACRS)** established a full year ago, the baseline for evaluating progress: Holtec, under oath, assured both the NRC staff and the ACRS that it would complete all License Condition Table S-2 fire-protection modifications before restart to achieve “*full program compliance*” under NFPA-805. Nearly one year later, however,

Holtec’s concurrent **August 12, 2025 Working-Hours Relief Request** reveals that, while citing “*supply-chain challenges*” to justify deferring those same commitments, the company simultaneously sought NRC approval for 109 days of extended, around-the-clock work **to expedite restart activities**. This juxtaposition—the request to **accelerate restart operations** while also requesting **relief from completing required safety modifications**—illustrates a continuing pattern of unfulfilled commitments despite demonstrated resources and control over schedule execution.

CONCURRENT SUBMITTALS: WORKING-HOURS RELIEF AND LICENSE- CONDITION FIRE-PROTECTION MODIFICATION RELIEF

On August 12, 2025, Holtec submitted its Request for Exemption from 10 C.F.R. § 26.205(d) work-hour limits (“*Fitness for Duty Programs – Work Hours*”, ML25224A206), followed by the NRC’s October 3, 2025 Request for Additional Information (RAI) (ML25280A014). That exemption sought authorization for a 109-day period of extended work shifts—from August 25 through December 12, 2025—to support continuous, around-the-clock outage and restart activities. **At the same time**, in its June 2025 License Amendment Request (ML25175A275) and its September 23, 2025 Supplemental LAR (ML25274A074)—the subject of this adjudication—Holtec asserted that persistent “*supply-chain challenges*” were the primary reason it could not complete the required NFPA-805 fire-protection modifications incorporated in License Condition Table S-2.

CONTRADICTORY REPRESENTATIONS: WORKFORCE CAPACITY VS. SUPPLY-CHAIN CONSTRAINTS

In its **Working-Hours Relief Request**, Holtec represented that it required relief to maintain sufficient qualified personnel and logistical support to sustain intensive 12-hour shift work across multiple major maintenance and modification projects throughout the 109-day window. This record alone demonstrates that Holtec possesses both the workforce and the organizational capacity to perform complex, labor-intensive projects when such projects are treated as operational priorities. Yet the **License Amendment Request (LAR)**—the subject of this adjudication—contains **no evidence** that comparable levels of manpower or materials were applied to the deferred NFPA-805 scope, or that Holtec directed any portion of its expanded outage effort toward making progress or completing the long-outstanding fire-protection modifications. Moreover, Holtec has provided **no documentation or supplemental information** demonstrating measurable progress toward completing the required license-condition modifications it now seeks to further extend in support of its restart schedule.

NO UPDATED “SUBSTANTIAL PROGRESS” INFORMATION PROVIDED TO THE NRC

Despite its demonstrated resource capacity, Holtec has **not submitted any supplemental information** to the NRC documenting any progress on the NFPA-805 license-condition items. No progress reports, completion percentages, or revised transition analyses appear in the public record—or in any filing supplementing its pending LAR—indicating that the same workforce and supply chains supporting restart activities were utilized to advance the fire-protection work.

Joint Petitioners further observe that, during the additional time afforded by the recent lapse in

government operations and continuation of this adjudication, no new docketed updates have been provided regarding the completion status of these NFPA-805 modifications. This lack of reporting raises a reasonable question as to whether the same supply-chain conditions Holtec cited as limiting fire-protection work would have applied equally to the other concurrent projects described in its work-hour exemption request.

REGULATORY IMPACT

Many of those same projects—turbine, balance-of-plant, and systems-restoration activities—would reasonably have been subject to the same supply-chain constraints Holtec identified as affecting its fire-protection work. Yet Holtec has provided no updated information or progress documentation to the NRC that would allow Staff to evaluate, under 10 C.F.R. § 50.92 and the agency’s established enforcement-discretion framework (ML083260577; ML091550665), whether the licensee has achieved “*substantial progress*” toward completion of its NFPA-805 fire-protection commitments. The resulting record shows extensive labor mobilization and material throughput for restart and power-ascension activities but no corresponding evidence of progress on the safety-critical fire-protection modifications that remain deferred under the current license condition.

This continuing absence of updated information—even to distinguish why the cited supply-chain effects would uniquely constrain the fire-protection modifications and not other concurrent outage projects—prevents NRC Staff from having the indispensable information required under 10 C.F.R. § 50.90 to perform the evaluation mandated by § 50.92 and determine whether continued reliance on enforcement discretion remains justified.

NEW SUPPORTING SUBSECTION: HOLTEC’S OCTOBER 2025 RAI RESPONSE EXPANDS THE WORK-HOUR RELIEF PERIOD AND IDENTIFIES KEY ELECTRICAL WORK GROUPS—FURTHER UNDERMINING ITS CLAIMED “RESOURCE CONSTRAINTS”

HOLTEC RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

Holtec’s most recent RAI response to the NRC (ML25288A074, October 2025) confirms that it has **expanded the duration of its work-hour exemption from 49 days to 60 days**, now covering the period from **August 25 through October 23, 2025**. In doing so, Holtec specifically identified the following work groups as subject to extended-hour schedules: **Projects, Champion Electricians, Champion Projects, Electrical Maintenance, and Instrument & Controls.**

ELECTRICAL RESOURCES NEEDED FOR REMAINING NFPA MODIFICATIONS

Each of these groups performs precisely the type of **electrical and instrumentation work necessary to complete the remaining NFPA-805 Table S-2 fire-protection modifications** that remain deferred under License Condition 2.C.(3)(c)—including modifications to power and control circuits, alternate DC supply installation, logic isolation, and spurious-operation prevention.

HOLTEC ARGUES IT HAS FLEXIBILITY IN RESOURCE MANAGEMENT

In its RAI response, Holtec asserts that the intent of 10 C.F.R. § 26.205(d)(4) is to *“provide licensees flexibility in scheduling required days off while accommodating the more intense work schedules associated with a unit outage,”* and that invoking these less restrictive limits for restart activities *“creates no new accident precursors.”* Holtec further claims that the increased

flexibility “*provides additional opportunities to identify and address any issues that may arise,*” while maintaining compliance with its Fatigue-Management Program.

HOLTEC FAILS TO FINISH NFPA-805 LICENSE CONDITION MODIFICATIONS

However, the company’s own identification of these electrical and I&C work groups demonstrates that the very personnel eligible for extended shifts are also the **core technical staff** capable of completing the outstanding NFPA-805 Table S-2 electrical modifications. Holtec’s decision to dedicate these same resources to restart activities instead of finishing the license-mandated safety upgrades further exposes the inconsistency in its claim that “*supply-chain challenges*” prevent progress on the fire-protection scope. By extending work hours for restart support while leaving critical electrical safety modifications incomplete, Holtec confirms that the constraint is not “*supply chain*”, but **prioritization**—a management choice inconsistent with the “*substantial progress*” standard required to continue enforcement discretion under Amendment 254 and 10 C.F.R. § 50.90.

HOLTEC’S EXPANDED SEPTEMBER DID AND SAFETY MARGIN STATEMENT REMAINS ONLY A CONCLUSIONARY ASSERTION

In Support of Contentions One, Two, Four, Five, Six and Seven

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HOLTEC’S SUBMITTAL REMAINS FLAWED

In its September 23, 2025 Supplemental LAR, Holtec expanded the one-line statement it originally included in its June 24, 2025 filing. The September supplement now states:

“In addition, the proposed change has no impact on the defense-in- depth (DID) echelons, which are: (1) prevent fires from starting, (2) rapidly detect, control, and extinguish promptly those fires that do occur thereby preventing fire damage, and (3) provide adequate level of fire protection for systems and structures so that a fire will not prevent essential safety functions from being performed, because changing the full compliance implementation date for fire protection program transition license condition 2.C.(3)(c)2 is not considered a change in methods. The proposed schedule change does not impact the level of fire protection provided so that a fire will not prevent essential safety functions from being performed.” (Holtec Supplemental LAR, Sept. 30, 2025, Enclosure at 4).

This expanded wording does not cure the defect already raised in the Consolidated Petition,

Contention Four (Incompleteness of DID and Safety-Margin Statement Under § 50.90).

Holtec’s statement remains purely conclusionary—it asserts that DID and safety margins are not impacted, but provides no supporting analysis. It does not include a re-performed DID evaluation, updated Attachment S, updated Attachment W risk tables, or any demonstration of how each proposed change satisfies each DID echelon or maintains safety margins.

The Commission has made clear in prior proceedings that *“the Board is not to accept uncritically the assertion that a document or other factual information or an expert opinion supplies the*

basis for a contention.” By the same logic, NRC Staff cannot perform an independent evaluation of Holtec’s bare assertion that DID and safety margins are unaffected without the supporting analysis required by NRC’s own guidance. The NRC staff needs to see the underlying documentation to access the Holtec assertions. Holtec’s supplemental LAR does not meet §50.90 admission requirements.

THE REGULATORY STANDARD UNDER 10 C.F.R. § 50.90

Section 50.90 of Title 10 of the Code of Federal Regulations provides:

“An applicant for amendment of license shall fully describe the changes desired, and **shall follow as far as applicable the form prescribed for original applications.**”

This language establishes two independent duties for every amendment:

1. The application must **fully describe** the change sought; and
2. It must follow, as far as applicable, the same form required for an original license application.

The second clause—“**shall follow as far as applicable the form prescribed for original applications**”—is critical here. It means that each amendment must provide, either directly or through certified incorporation by reference, the same type of supporting information and analyses that would have been required for an original licensing review of the same subject matter. For NFPA-805 fire-protection amendments, that “form” includes the complete set of updated Attachments M (License Condition), S (Plant Modifications Committed), and W (Fire PRA Insights) and the accompanying deterministic and probabilistic evaluations demonstrating compliance with § 50.48(c).

Thus, even if Holtec believes that nothing has changed since Entergy’s 2018 submission, § 50.90 requires it to **either re-submit or certify** those analyses and attachments as current, accurate, and applicable to the plant’s present configuration. Holtec’s failure to do so means its application does not “*follow the form prescribed for original applications,*” and therefore is procedurally incomplete.

NRC PRECEDENT CONFIRMS THIS STANDARD

NRC’s **2016 NFPA-805 LAR Guidance** (ML16015A416) for revising fire protection license conditions, explicitly requires that:

“The defense-in-depth and safety-margin evaluations from the original NFPA-805 transition LAR must be re-performed on the proposed changes.”

The NRC enforced this requirement directly in its **April 29, 2019 Request for Additional Information (RAI ML19122A485)** to Entergy concerning Palisades’ 2018 NFPA-805 submittal.

In that RAI, NRC Staff cautioned Entergy, that:

*“**Meeting risk guidelines does not constitute meeting DID.** Indicate whether the DID approach accepted for NFPA 805 implementation applies to the modifications that are being deleted and modifications S2-15 and S2-21 that are being clarified and **describe how each proposed change satisfies each DID echelon.**”*

That directive established a clear regulatory line: **risk acceptance alone cannot substitute for a defense-in-depth evaluation for each Table S2 item proposed change.** A re-performed DID analysis—explicitly tied to each echelon—is required whenever modifications are deferred, cancelled, or clarified.

THE ENTERGY 2018 LAR SUBMITTAL, DEFENSE IN DEPTH, DID PRECEDENT

The 2018 Entergy submittal is the current basis for the Table S-2 license conditions that Holtec now proposes to change; therefore, it is the applicable benchmark under § 50.90's requirement that a license-amendment application "*shall follow as far as applicable the form prescribed for original applications.*"

When faced with the same issue in 2019 responding to the NRC RAI, Entergy provided the type of full, structured DID evaluation that § 50.90 and NFPA-805 require and missing from the current, September 23, 2025 Holtec Supplemental LAR. Its RAI response (ML19149A302) re-stated the NFPA-805 § 4.2.4.2 framework:

"The elements of DID are: (1) preventing fires from starting; (2) rapidly detecting fires and controlling and extinguishing promptly those fires that do occur; and (3) providing an adequate level of fire protection for structures, systems, and components important to safety... DID is achieved when an adequate balance between each of the elements is provided."

Entergy then, for each Table S2 item, **quantitatively linked** each element to its risk parameter—fire-ignition frequency and severity factor, non-suppression probability, and conditional core-damage probability—and performed an **item-by-item evaluation** of each proposed change to Table S-2 modification.

Entergy also identified compensating DID features—such as redundant equipment and alternate trip circuitry—to show that the overall DID framework and safety margins remained intact.

Finally, Entergy confirmed that the clarifications for each Table S2 item to be changed, were **incorporated into the fire PRA** and reflected in **updated Attachment W**, thus linking its DID evaluation to current, traceable risk quantification.

The NRC accepted those responses as meeting both NFPA-805 § 4.2.4.2 and § 50.90 completeness.

Holtec did not include any of the required Defense-in-Depth (DID) analyses, as Entergy did, to support its conclusory statements.

HOLTEC’S SEPTEMBER LAR FAILS THE SAME STANDARD

By contrast, Holtec’s September 2025 supplement provides none of the information or analyses that § 50.90 and NRC precedent require. It characterizes the action as “*administrative*,” asserts that it “*is not considered a change in methods*,” and concludes that the schedule change “*has no impact on DID echelons or safety margins*.” Those are **conclusionary statements**, not demonstrations and providing completed documentation for NRC review.

Under the plain language of § 50.90, Holtec was obligated to follow the same form as the original NFPA-805 application—meaning it had to re-perform or re-certify the DID and safety-margin evaluations and submit current Attachments M, S, and W. The NRC’s 2019 RAI to Entergy required exactly that, including an updated PRA and a revised license condition date. Holtec has done none of these things.

Its September 2025 DID statement remains a bare assertion with no supporting evaluation or documentation. It is precisely the type of unsupported submission that led NRC Staff to issue the 2019 RAI to Entergy. By failing to follow “*the form prescribed for original applications*,” Holtec’s LAR is incomplete as a matter of law and cannot be accepted as satisfying § 50.90.

CONCLUSIONARY STATEMENTS

Neither NRC Staff nor Joint Petitioners can meaningfully evaluate the effect of Holtec’s proposal on defense-in-depth and safety margins because the indispensable analyses have not been submitted. The NRC’s own precedent confirms that “*meeting risk guidelines does not constitute meeting DID.*” Without re-performed DID and safety-margin evaluations—re-submitted in the same form required for an original NFPA-805 application—the September 23, 2025 LAR remains facially incomplete.

CONCLUSION

Accordingly, the Board should find that Holtec’s September 23, 2025 supplement remains incomplete under **10 C.F.R. § 50.90**, which requires that a license-amendment application “*fully describe the changes desired*” and “*follow as far as applicable the form prescribed for original applications.*” A conclusionary paragraph cannot satisfy that standard. Without updated and documented DID and safety-margin evaluations, NRC Staff cannot make the findings required under **10 C.F.R. § 50.92**, nor can the submittal be found consistent with **10 C.F.R. § 50.48(c)** and **NFPA-805 § 4.2.4**.

Holtec must provide supporting analyses—comparable in scope and rigor to those performed by Entergy in 2019—before NRC Staff can lawfully proceed to substantive review or approval.

ROADMAP: PALISADES, DEMONSTRATING COMPLIANCE WITH THE § 50.90 “*FORM OF THE ORIGINAL*” HOLTEC CAN REPAIR LAR FLAWS AND CHOOSES NOT TO

In Support of Contentions One, Two, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

Contention 5 – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)

Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

INTRODUCTION

Under **10 C.F.R. § 50.90**, any holder of a facility operating license who desires to amend the license or technical specifications **must file an application fully describing the proposed change and its basis**.

The regulation requires that each submittal:

1. Clearly identify the portions of the license, technical specifications, or associated licensing basis documents to be changed;
2. Provide a **complete description** of the proposed amendment, including the **technical, safety, and regulatory bases** supporting the change; and
3. Be presented in **the same form and level of detail as the original submission**, allowing the NRC to evaluate the amendment against the approved licensing basis.

This “*form of the original*” requirement is fundamental to the NRC’s regulatory process. It ensures that license amendments are comprehensive, transparent, and technically sufficient for staff review and safety evaluation.

The following timeline demonstrates how **Entergy Nuclear Operations, Inc. (ENO)** consistently complied with these § 50.90 standards when establishing and later modifying the Palisades NFPA-805 fire-protection licensing basis.

Entergy first submitted a **complete License Amendment Request (LAR)** establishing the NFPA-805 license condition, and later submitted **two full § 50.90 amendments** to modify that same license condition, scope and completion trigger.

Each Entergy filing contained all indispensable technical and regulatory information required for NRC review and was prepared **in the form of the original**, providing the benchmark for all future amendments. Holtec's September 23 filing does not meet this requirement.

The timeline also identifies several Entergy **administrative letters** submitted during this period. While these letters informed the NRC of Entergy's operating plans, they **did not alter the Table S-2 scope, the license condition, or its completion trigger**.

This distinction is crucial: only formal § 50.90 submittals, not administrative correspondence, can lawfully change a license condition.

ESTABLISHED THE § 50.90 BASE FOR THE FORM THAT MUST BE FOLLOWED FOR FUTURE LARS

By **December 2012**, Entergy completed its NFPA-805 transition submittal.

In *PNP 2012-106*, "*License Amendment Request to Adopt NFPA 805 Performance-Based Standard for Fire Protection for Light Water Reactors*" (**ML12348A455**), Entergy requested NRC approval under 10 C.F.R. § 50.48(c) to replace the Appendix R licensing basis with

NFPA-805. The application included the complete Transition Report and Attachments M, S, and W, identifying all Table S-2 modifications and their implementation schedule.

Following review, the NRC issued **Amendment 254** on **February 27, 2015 (ML15007A191)**, approving Palisades' NFPA-805 transition and establishing an enforceable **fire-protection license condition 2.C.(3)**.

This condition required Entergy to complete all Table S-2 modifications by the **end of the second full operating cycle after approval** and to maintain compensatory measures until completion.

This 2012 LAR became the **template for all subsequent § 50.90 filings**—a complete, fully documented amendment meeting the “*form of the original*” standard.

ENTERGY’S ADMINISTRATIVE LETTERS — NO EFFECT ON THE LICENSE CONDITION, SCOPE, OR TRIGGER

In **late 2016**, Entergy announced plans to **permanently cease operations in 2018**.

Its *November 30 2016* letter (**ML16344A088**) requested NRC agreement to **stop work on remaining NFPA-805 modifications**, explaining that shutdown would occur before the license-condition trigger date.

This was an **administrative request**, not a proposal to modify the Table S-2 license condition or completion trigger. No revision to Table S2 or the trigger date was needed,

The NRC acknowledged the letter in its *December 2016 public-meeting summary* (**ML16344A086**).

On **January 4 2017**, Entergy formally certified to the NRC under **10 C.F.R. § 50.82(a)(1)(i)** that Palisades would **permanently cease power operations on October 1 2018 (ML17004A062)**, consistent with its earlier announcement.

This certification served only as a regulatory notice of intent to decommission and **had no effect** on the Table S-2 scope or timing requirements established by Amendment 254.

UPDATED THE § 50.90 BASE FOR THE FORM THAT MUST BE FOLLOWED FOR FUTURE LARS

Later that same year, Entergy **reversed course**. In “*Notification of Revised Permanent Cessation of Power Operations Date*” dated **September 28, 2017 (ML17271A233)**, Entergy informed the NRC that it had decided to **continue operating Palisades for one additional operating cycle**, postponing permanent shutdown until the **spring 2022 refueling outage**. Because this additional cycle extended operation beyond the NFPA-805 license condition Table S2 completion trigger, Entergy recognized that the **license condition established by Amendment 254 could no longer be met as written** and that a new § 50.90 amendment would be required.

UPDATED THE § 50.90 BASE FOR THE FORM THAT MUST BE FOLLOWED FOR FUTURE LARS

To address this, on **November 1 2018**, Entergy submitted a comprehensive **License Amendment Request (LAR)** titled “*Fire Protection Program Transition to NFPA 805*” (**ML18305B321 – B323**).

The 2018 LAR sought to **revise the Table S-2 implementation scope and adjust the**

completion trigger to reflect **one final cycle of operation**.

Entergy characterized this as an update for the “**last cycle**” before permanent cessation.

The request also clarified or cancelled several Table S-2 items and provided updated Attachments M, S, and W incorporating the current **Probabilistic Risk Assessment (PRA)** and **Defense-in-Depth (DID)** evaluations. This is the same as Holtec is now attempting in its September 23 filing, but only as an “*administrative*” matter.

In **April 2019**, the NRC issued a **Request for Additional Information (ML19122A485)** to Entergy, seeking confirmation that compensatory measures and **Defense-in-Depth (DID)** evaluations remained sufficient while Table S-2 work was deferred.

This RAI formally established the NRC’s position that Probabilistic Risk Assessment (PRA) insights cannot serve as a substitute for updating the deterministic Defense-in-Depth and Safety-Margin evaluations required by NFPA-805.

Entergy’s 2018 application met this expectation by including **updated DID and Margin analyses** in its submittal to demonstrate continued compliance with 10 C.F.R. § 50.48(c) and the NFPA-805 performance criteria.

ESTABLISHED THE CURRENT NFPA-805 TABLE S-2 LICENSE-CONDITION SCOPE AND TRIGGER FOR COMPLETION

In **2022**, the NRC completed action on Entergy’s **Commitment-Change Evaluation (ML18039A244)**, approving a **revised license condition** extending the **Table S-2 completion deadline** to the **refueling outage following the third full operating cycle after NRC approval**.

The staff found the revision acceptable because the **NFPA-805 license condition and**

compensatory measures remained in effect, ensuring continued compliance with **10 C.F.R. § 50.48(c)**.

This final action reflected a properly prepared § 50.90 submittal—fully developed, risk-informed, and complete in both form and content.

CLARIFYING POINT

Entergy’s Administrative Letters Were Not License-Amendment Requests. Entergy’s **2016 correspondence to stop NFPA-805 work** was purely **administrative**, submitted only because the company then expected early shutdown.

It **did not change** the Table S-2 modification scope or propose any change to the completion trigger. There was no need to do so.

When Entergy later decided to operate for one additional and final cycle, it properly filed the November 1 2018 § 50.90 LAR, following the same detailed format and completeness as the 2012 submission, to **formally revise both the Table S-2 scope and trigger**—fully consistent with NRC procedural and regulatory requirements.

CONCLUSION — APPLYING THE § 50.90 STANDARD TO HOLTEC’S CURRENT FILING

The record shows that **Entergy consistently complied with 10 C.F.R. § 50.90** when establishing and modifying the Palisades NFPA-805 fire-protection licensing basis—the same regulatory pathway that **Holtec now seeks to use**.

Each of Entergy’s formal License Amendment Requests—including the **2012 LAR** that created the NFPA-805 license condition and the **2018 LAR** that revised its scope and completion trigger

—was prepared **in the form of the preceding original**, fully describing the change, its technical and regulatory bases, and including all indispensable analyses required for NRC evaluation.

By contrast, the Entergy **administrative letters** issued between 2016 and 2017—including the **November 30 2016 request to suspend modification work (ML16344A088)** and the **January 4 2017 certification of permanent cessation(ML17004A062)**—were **not § 50.90 submittals**.

They contained no proposed license change, no revision to Table S-2, and no supporting safety or risk analysis.

These letters were informational only, reflecting Entergy’s expectation of early shutdown; therefore, the **license condition, its scope, and its trigger remained fully in effect** until Entergy submitted the **November 1 2018 LAR** to formally request a change for one more, last operating cycle.

It is likely that **Holtec, in preparing its September 23, 2025 NFPA-805 License Amendment Request, mistakenly modeled its filing on those Entergy administrative letters** because they appear similar in structure and tone to the Holtec September 23, 2025 filing.

However, those Entergy letters were never intended to serve as license-amendment applications and lacked the indispensable information required under §§ 50.90 and 50.92 for NRC review for changing license conditions.

This procedural misunderstanding, perhaps, explains why Holtec’s current LAR **omits critical technical and regulatory detail** indispensable for the NRC to make its findings of reasonable assurance and safety.

HOLTEC CAN CORRECT ITS SEPTEMBER 23 LAR, BUT CHOOSES NOT TO

Note: The following does not apply to Contention Three— Failure to Address Technical Specification Requirement for Reactor Vessel Head and Pressurizer Vent Valves

Holtec can readily correct the procedural flaw—its failure to provide the “same form and level of detail as the original submission”—by following the same comprehensive approach that Entergy used successfully.

Specifically, Holtec could file a new License Amendment Request, in the form of the last Entergy submittal, to formally modify the Table S-2 license condition and its completion trigger, providing the same level of technical, regulatory, and risk-informed detail as contained in the 2018–2022 Entergy submissions, which culminated in the NRC’s approval of the Commitment-Change Evaluation (ML18039A244).

Holtec doing so would **restore procedural integrity** to the NRC review process, ensure a **complete and informed safety finding**, and bring Holtec’s application into full compliance with the established **§ 50.90 standard and the Palisades licensing precedent**.

Alternatively, Holtec could achieve compliance by completing the remaining Table S-2 license-condition modifications, thereby satisfying the existing NFPA-805 licensing basis without further amendment.

ROAD MAP OF REGULATORY TRAIL: HOLTEC’S FAILURE TO PROVIDE UPDATED ATTACHMENTS RENDERS ITS SUPPLEMENTAL SUBMITTAL INCOMPLETE

In Support of Contentions One, Two, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

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Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

Petitioners allege that Holtec has failed to include the mandatory submissions required to support its proposed changes to the NFPA-805 license condition. When viewed through the full regulatory trail—from **General Design Criterion 3 (GDC 3)** through **Appendix R, the 1996 escalated enforcement action and deferred enforcement, 10 CFR § 50.48, the Palisades NFPA-805 license condition**, and **NRC Guidance ML16015A416**—Holtec’s omission of updated Attachments renders both the June 24 and September 23, 2025 LARs procedurally and substantively incomplete.

REGULATORY FRAMEWORK GOVERNING FIRE-PROTECTION MODIFICATIONS

- 1. GDC 3 (10 CFR Part 50, Appendix A):** All fire-protection requirements originate from GDC 3, which obligates licensees to design and locate structures, systems, and components important to safety so as to minimize the probability and effects of fires. This criterion is the statutory design basis that all subsequent fire-protection rules—including Appendix R and NFPA-805—implement.

2. **Appendix R to 10 CFR Part 50:** Implements GDC 3 **deterministically** for facilities licensed before January 1, 1979, such as Palisades, by requiring physical separation, fire barriers, detection, suppression, and safe-shutdown capability. **Any area or system not yet fully transitioned to NFPA-805 remains subject to these Appendix R obligations.**
3. **1996 Escalated Enforcement and Deferred Enforcement (ML003705300):** In 1996 the NRC issued a Severity Level III violation and proposed a \$50,000 civil penalty against Consumers Power for failure to implement the 1978 Appendix R license condition requirements. Rather than terminate the enforcement or require reactor shutdown, NRC deferred further action contingent upon the licensee's completion of corrective measures within the fire-protection program. That deferral became the legal and regulatory precursor to later enforcement-discretion and NFPA-805 transition policy. Accordingly, Palisades has remained under continuous NRC oversight for fire-protection deficiencies since that order, and the underlying Appendix R obligations remain in force until fully superseded through an approved license amendment or exemption.
4. **10 CFR § 50.48(b)–(c):** Section 50.48 (b) codifies Appendix R as the binding method of compliance for pre-1979 plants. Section 50.48 (c) allows adoption of NFPA-805 as a performance-based alternative—but only by license amendment under § 50.90—and requires the licensee to identify and revise all affected license conditions, technical specifications, and supporting documentation. **Until full implementation is complete, Appendix R remains enforceable.**
5. **2008 Enforcement Discretion Letter (ML083260577):** Adding to the 1996 deferral, the NRC authorized continued enforcement discretion for Palisades only if the licensee

demonstrated “substantial progress” toward completing its NFPA-805 transition. This policy established the current standard that Holtec must meet to justify any further extension of fire-protection modifications.

6. **Palisades License Condition 2.C.(3)(c)2 (Amendment 269, ML19198A080):** Pursuant to § 50.48 (c), Palisades must “implement the modifications to its facility, as described in Table S-2 ‘Plant Modifications Committed,’ ... to complete the transition to full compliance with 10 CFR 50.48(c)” and maintain compensatory measures until all modifications are complete. Each Table S-2 entry is thus a binding license condition.
7. **SECY-15-0065 and SRM-SECY-15-0065 (ML15056A755 / ML15209A682):** In 2015 the NRC staff issued SECY-15-0065, *“Proposed Options for Responding to Requests to Change License Conditions Associated with NRC-Approved NFPA-805 License Amendments.”* The paper was prompted by licensees seeking to revise or defer NFPA-805 fire-protection commitments before completing full implementation. The Commission’s **Staff Requirements Memorandum (SRM-SECY-15-0065)** approved **Option 1**, directing that *any request to modify an NFPA-805 license condition must be processed as a formal 10 CFR § 50.90 license amendment and be supported by complete, updated documentation*—including revised Attachments M, S, and W, risk analyses, and defense-in-depth evaluations. Importantly, SECY-15-0065 further **reinforced the “substantial progress”** requirement earlier established under the NRC’s 2008 Palisades’ enforcement-discretion policy (ML083260577), by making clear that **licensees must demonstrate continued implementation progress when seeking to change previously approved fire-protection commitments.** The staff explained that

requests to defer or remove NFPA-805 modifications **would only be acceptable if the licensee could show measurable progress toward completion of its overall transition and a maintained level of safety equivalent to the original commitments.** The Commission specifically instructed NRC staff to develop clear guidance describing the required content of such submittals to ensure that progress, defense-in-depth, and safety margins remain demonstrably preserved. That directive led directly to issuance of NRC Guidance ML16015A416 (item 8, next), which formalized and clarified these expectations as the minimum required content for any 10 C.F.R. § 50.90 request to change, defer, or delete NFPA-805 license-condition obligations.

8. **NRC Guidance ML16015A416, “*Recommended Content for License Amendment Requests that Seek Changes to License Conditions that were Established in Amendments to Adopt NFPA 805 but have yet to be Fully Implemented*”:** Clarifies that any license-amendment request to change, defer, or delete NFPA-805 license-condition modifications that have not been fully implemented **must include updated Attachments M (license condition), S (list of modifications), and W (change-in-risk tables); quantified risk and PRA updates (CDF/LERF); and explicit defense-in-depth and safety-margin evaluations.** These are the minimum submittal elements necessary for NRC to make the findings required under § 50.92.

RELEVANCE OF THE 1996 DEFERRED ENFORCEMENT TO HOLTEC’S CURRENT DEFICIENCIES

The 1996 deferred enforcement established that Palisades could not cure its fire-protection appendix R violations through administrative reclassification or schedule extension alone. Only demonstrated completion of physical modifications and verified safe-shutdown capability could resolve the violation. Holtec’s failure, now, to provide updated Attachments repeats the same pattern of inadequate documentation and demonstrates no “*substantial progress*” since that initial deferral. Because the NFPA-805 transition was explicitly intended to replace those deferred Appendix R requirements, Holtec’s omissions revive the very compliance gap that triggered the 1996 enforcement action.

REGULATORY CONSEQUENCE

When viewed in sequence—**GDC 3 → Appendix R → 1996 Escalated Enforcement and Deferral → § 50.48(b)–(c) → 2008 Enforcement Discretion → NFPA-805 License Condition → ML16015A416**—Holtec’s June 24 and September 23 2025 LARs break the continuity of this regulatory chain. By omitting the required updated attachments, Holtec provides no basis or indispensable information, for NRC Staff to determine continued compliance with either the 1996 deferred Appendix R obligations or the current NFPA-805 transition requirements. Accordingly, the LARs are incomplete under § 50.90 and § 50.48(c)(3)(i), and the underlying 1996 violation remains subject to Appendix R enforcement until Holtec submits a fully compliant, ML16015A416-supported license amendment.

ENTERGY’S 2018 NFPA-805 LAR — PURPOSE, PUBLIC PROXY, AND REQUIRED FORM (INCLUDING DID & SAFETY MARGINS), ML16344A088

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 4** – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

WHAT THIS SECTION IS ABOUT.

This section explains the structure and content of Entergy’s NFPA-805 license-amendment approach that the NRC approved in 2019 and that still defines today’s Fire Protection License Condition for Palisades. Because a large portion of the 2018 LAR and associated NRC review were withheld from public release, we present the December 7, 2016 Entergy slides, ML16344A088, “*LAR on Proposed Modification Changes to Support Implementation of NFPA 805 at Palisades December 7, 2016*” as a public proxy for the withheld content and use the public 2018 LAR text to show the required Defense-in-Depth (DID) and Safety Margin evaluations that were part of the accepted form. The goal is to document the form and level of description that § 50.92 requires subsequent LARs (including Holtec’s) to match.

THE ENTERGY 2018 LAR, FULL DESCRIPTION AND FORM, ML 16344A088

- Entergy’s 2018 LAR states the submittal will provide, for Option A approvals:
 - “i. A summary of all changes to the modifications;
 - ii. A summary of all changes to the PRA models and explanation for each change;
 - iii. New, updated versions in their entirety of: the license condition (Attachment M), list of plant modifications (Attachment S), and the summarizing area wide change-in-risk result tables (Attachment W); and
 - iv. A statement that the defense-in-depth (DID) and safety margin evaluations associated with the original LAR have been completed on the proposed changes.”
- NRC’s 2019 approval (Amendment 269) confirms that the license condition incorporates the NFPA-805 framework and updated references, and that risk-informed changes must also be “consistent with the defense-in-depth philosophy and must maintain sufficient safety margins.”
- The NRC’s 2016 public meeting summary documents Entergy’s plan to **remove six** and **clarify eight** NFPA-805 modifications under the transition License Condition 2.C.(3)(c)2; staff feedback emphasized ensuring **deterministic requirements continue to be met** and inclusion of information to understand **risk results**—the same pillars as DID and margin.

SUMMARY (WHAT THIS MEANS FOR OUR ARGUMENT)

- **Slides as proxy.** Because much of the 2018 Entergy package was withheld, the **2016 slides** serve as a **public proxy** for the LAR’s purpose, scope, and structure (what was

being removed/clarified; how PRA results informed that proposal; and how it tied to License Condition 2.C.(3)(c)2).

- **DID & Safety Margins are mandatory parts of the form.** The **accepted 2018 LAR form** expressly required an **affirmative DID and Safety Margin evaluation** statement as part of the Option A package **alongside** full, updated Attachments **M, S, and W** and summaries of PRA model changes. That is the **last NRC-accepted template** and, under §§ 50.90/50.92, sets the **benchmark** for completeness and format that any later LAR must meet.
- **Regulatory through-line.** Amendment 269 carries forward the same expectations: any risk-informed change must be **consistent with DID** and **maintain safety margins**—not just present delta-risk numbers. Thus, DID and margins are not optional narrative; they are **determinative acceptance criteria** built into the license condition and approval basis.

CONCLUSION FOR THIS SECTION

The **2016 slides (proxy)** plus the **2018 LAR text** show the NRC-accepted **form**: updated **M/S/W** attachments, PRA change summaries, and explicit **DID** and **Safety Margin** evaluations. This is the controlling blueprint for § 50.92 findings today and the standard Holtec’s present LAR must equal or exceed. The full Entergy slides are attached as **Appendix A**.

A ROAD MAP, DETERMINISTIC–PROBABILISTIC HIERARCHY: WHY HOLTEC’S RELIANCE ON PRA ALONE IS INSUFFICIENT: PRA STANDS ON DETERMINISTIC SHOULDERS

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

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HOLTEC’S RELIANCE ONLY ON PRA STATEMENTS

Holtec’s September 23, 2025 submission relies almost entirely on summary statements referencing probabilistic risk assessment (PRA) to justify the deferral or reclassification of all five NFPA-805 Table S-2 license-condition modifications it requests to change. These conclusory statements—offering that “risk remains low” or that “there is no significant change to CDF or LERF”—are not accompanied by the deterministic evaluations, updated Attachments, or defense-in-depth demonstrations required under NRC regulations and guidance.

As the NRC explicitly stated in its 2019 Request for Additional Information to Entergy (ML19122A485, “NFPA-805 Implementation – Fire PRA and Defense-in-Depth Clarifications”), the staff cautioned that such risk-based conclusions cannot stand alone:

“The staff notes that a conclusion of low risk significance does not, by itself, demonstrate that the deterministic requirements or defense-in-depth principles have

been satisfied. Risk information may support the evaluation, but it cannot substitute for the deterministic analyses and documentation required by the NFPA-805 rule.”

That RAI statement was issued specifically in response to Entergy’s omission of the required **defense-in-depth (DID) and safety-margin assessments** accompanying proposed changes to Table S-2, and it remains directly applicable to Holtec’s September 23, 2025 submittal. Under the governing regulatory structure, such PRA-only assertions are insufficient to support a license-amendment request under **10 C.F.R. § 50.90**.

THE REGULATORY TRAIL AND USE OF PRA

The NRC’s regulatory trail, extending from General Design Criterion 3 (GDC 3) through Appendix R, § 50.48(c), and the Palisades NFPA-805 license condition, establishes a clear hierarchy: deterministic requirements define *what must be achieved* to ensure adequate protection; probabilistic methods may then be used only to quantify the *incremental risk* of deviations within those established boundaries. The NRC has consistently reaffirmed this principle through **Regulatory Guide 1.174 (ML17317A256)**, which states that PRA:

“should be used in a manner that complements the NRC’s deterministic approach and supports the traditional defense-in-depth philosophy.”

PRA is therefore a secondary analytical tool—an aid to understanding, not a substitute for compliance.

This explanation applies to all of the NFPA-805 Table S-2 items in Holtec’s September 23 submittal. To illustrate with one example, Petitioners reference **Item S15**, the *Reactor Head and Pressurizer Vent Valve* modification. Under **NUREG-0737, Item II.B.1**, and **10 C.F.R. Part 50, Appendix R**, Palisades is deterministically required to maintain reactor-coolant-system vent

valves operable from the control room at all times. As explained in Joint Petitioners' September consolidated petition filing, that requirement is fixed and incorporated into the plant's Current Licensing Basis. A PRA may estimate the change in core-damage frequency (Δ CDF) or large-early-release frequency (Δ LERF) if the vent valve were temporarily inoperable, such as a fire causing the cables to be destroyed, but it cannot redefine or waive the underlying obligation itself.

HOLTEC'S SEPTEMBER 23 LAR SUBMITTAL IS FLAWED AND DOES NOT MEET §50.90 CONTENT REQUIREMENTS

Holtec's submittal omits the deterministic evaluation of vent-valve operability, the corresponding Technical-Specification implications, and the updated Attachments M, S, and W required by NRC Guidance ML16015A416. By presenting only risk metrics and qualitative PRA conclusions, Holtec inverts the required regulatory order—placing probabilistic results above the deterministic baseline on which they must rest. This omission breaks the continuity of the NRC's safety framework and leaves the NRC without the indispensable information needed to make the findings required under §§ 50.90 and 50.92.

SUMMARY: PRA ITSELF IS NOT A SUBSTITUTE

In summary, **PRA stands on the shoulders of deterministic requirements—it cannot replace them.** Deterministic analyses establish the mandatory safety functions, configuration controls, and license-condition obligations; PRA merely quantifies the relative safety margin when those obligations are fully defined. Because Holtec's September 23 LAR fails to provide these underlying deterministic analyses, its PRA-only approach is procedurally and substantively

incomplete for every Table S-2 item, and particularly for Item S15, which anchors Palisades' fire-protection and post-accident venting capability.

ROAD MAP; CONTINUATION AND CONDITIONAL NATURE OF PALISADES' ENFORCEMENT DISCRETION

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

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***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability*

ENFORCEMENT DISCRETION FOR PALISADES ORIGINALLY ENDED ON

NOVEMBER 30, 2008

The record demonstrates that the current period of fire protection enforcement discretion for Palisades originally ended on November 30, 2008. However, prior to that date, Entergy Nuclear Operations, Inc. (ENO)—then the licensed operator—submitted a request dated August 28, 2008 (ENOC-08-00042; ML082540402) seeking to extend the enforcement discretion period granted under the NRC's *Interim Enforcement Policy for Fire Protection Issues During Transition to NFPA 805*.

ENTERGY’S NEW REQUEST FOR ENFORCEMENT DISCRETION, CONDITIONED ON SUBSTANTIAL PROGRESS

As documented in the NRC’s December 9, 2008 correspondence, “Palisades Nuclear Plant – Evaluation of the Request for an Extension of Enforcement Discretion in Accordance with the Interim Enforcement Policy for Fire Protection Issues During Transition to NFPA 805”

(ML083260577), the licensee requested that:

“...the period of fire protection enforcement discretion for the Palisades Nuclear Plant be extended until 19 months after the NRC’s issuance of the safety evaluation for the second pilot plant’s license amendment request to transition to NFPA 805.” [ML083260577, p. 1–2]

The NRC letter explains that the agency’s **September 10, 2008 Federal Register notice (73 FR 52705)** revised the Interim Enforcement Policy to allow case-by-case extensions only if a licensee could demonstrate “**substantial progress**” in its transition to NFPA 805. The letter further clarifies that Palisades’ request exceeded the default enforcement policy period and would require additional justification before an extension could be approved.

ONGOING CLB, SUBSTANTIAL PROGRESS

This correspondence establishes a clear regulatory baseline: Palisades’ prior enforcement discretion under **10 C.F.R. § 50.48(b)** and **Appendix R** was explicitly time-limited to November 30, 2008 and could only continue if the licensee met NRC’s substantial-progress criteria. That condition—and the supporting documentation required by the NRC—remains a critical part of the **Current Licensing Basis (CLB)** and directly governs any subsequent request, such as

Holtec’s September 23, 2025 submittal, to defer completion of NFPA 805 license-condition modifications.

REGULATORY ROADMAP: ORIGIN AND CONTINUING APPLICABILITY OF THE NRC’S “SUBSTANTIAL PROGRESS” CRITERION FOR ENFORCEMENT DISCRETION

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 4** – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

PURPOSE OF THIS ROADMAP

The following regulatory history establishes that the NRC’s “**substantial progress**” requirement—originally developed between 2004 and 2006 and formally applied to Palisades in 2008—**remains fully in effect today** as a controlling condition for continued enforcement discretion under 10 C.F.R. § 50.48(c).

This requirement is not a historical artifact; it is a continuing element of the Palisades Current Licensing Basis (CLB), carried forward through the NRC’s December 9, 2008 enforcement

correspondence (ML083260577) and reaffirmed in its June 20, 2009 progress determination (ML091550665).

Under this regulatory structure, enforcement discretion is **conditional and revocable**. To maintain it, a licensee must demonstrate two continuing prerequisites:

1. That compensatory measures remain feasible, reliable, and effective; and
2. That substantial progress is being made toward completing the NFPA 805 transition and closing all previously identified fire-protection non-compliances.

If either condition is not met, the NRC must terminate enforcement discretion.

Holtec's **September 23, 2025 supplemental License Amendment Request** fails to satisfy these conditions. The submission provides **no current analysis or evidence of measurable progress** toward completing the NFPA 805 transition and omits the documentation explicitly required by the NRC's 2008 enforcement policy—namely, the list of non-compliances and compensatory measures, operator-action feasibility demonstrations, descriptions of completed modifications, and milestone schedules.

By omitting this information, Holtec's September 23 filing fails to meet the **completeness requirement of 10 C.F.R. § 50.90**, which mandates that a license-amendment request “fully describe the changes desired” and include sufficient information for the NRC to make the findings required by § 50.92.

Accordingly, the regulatory basis summarized below demonstrates that the “*substantial progress*” standard remains an active and enforceable element of Palisades' fire-protection license condition. Holtec's September 23, 2025 submission does not meet this standard and

therefore cannot lawfully support continued enforcement discretion or NRC approval under § 50.90.

LEGAL FRAMEWORK

Section 50.48(b) requires all plants licensed before January 1, 1979—including Palisades—to comply with Appendix R. Section 50.48(c) allows such plants to transition to NFPA 805, but that transition does not remove Appendix R deterministic obligations.

To manage this interim period, the NRC created a temporary enforcement-discretion policy through a sequence of *Federal Register* notices issued between 2004 and 2006 and the accompanying Enforcement Guidance Memoranda (EGMs). These instruments collectively defined when, and under what conditions, enforcement discretion could be granted, extended, or terminated.

DEVELOPMENT OF THE “SUBSTANTIAL PROGRESS” STANDARD

The NRC first announced its interim enforcement policy on **June 6, 2004 (69 FR 33684)**. That notice stated that enforcement discretion would continue *only if* the licensee maintained compensatory measures providing “reasonable assurance that the plant can achieve and maintain safe shutdown in the event of a fire.” The NRC warned that failure to maintain such measures would result in **revocation of enforcement discretion and resumption of normal enforcement action** under § 50.48.

On **January 14, 2005 (70 FR 2662)**, the NRC extended the policy for “*known issues*” through December 31, 2005, requiring each licensee to document all non-compliances and interim compensatory actions.

On **March 6, 2006 (71 FR 11169)**, following withdrawal of a manual-action rulemaking, the NRC reiterated that compensatory measures must be feasible and reliable and that *“if adequate compensatory measures are not maintained, the NRC will pursue enforcement action consistent with 10 C.F.R. 50.48.”*

The decisive step occurred on **April 18, 2006 (71 FR 19905)**, when the NRC formally introduced the **“substantial progress”** threshold. The notice extended the transition period from two to three years but made clear:

“This enforcement discretion remains subject to the licensee demonstrating substantial progress toward completion of the NFPA 805 transition and maintaining appropriate compensatory measures. Failure to demonstrate substantial progress will result in termination of enforcement discretion and the application of the Commission’s normal enforcement process.”

To implement this policy, the staff issued EGM-98-002, Revision 2, Supplement 1 (September 6, 2006), which stated:

*“Enforcement discretion **will not be applied** where a licensee fails to implement reasonable compensatory actions or **does not make adequate progress in correcting the noncompliance.**”*

These actions created a two-part test for maintaining discretion: (1) the compensatory measures must remain effective; and (2) measurable progress toward NFPA 805 completion must be shown. Failure of either condition automatically ends the period of discretion.

APPLICATION TO PALISADES IN 2008, THE CURRENT LICENSING BASIS, CLB

The NRC applied this national policy directly to Palisades in its **December 9, 2008 letter** (ML083260577). The letter required Entergy to: compile a complete list of fire-protection non-

compliances and compensatory measures; document operator-manual-action feasibility; describe completed physical modifications addressing risk-significant deficiencies; and provide a milestone schedule for completion of the fire PRA and other transition elements.

The letter concluded:

“The NRC staff will review the licensee’s submittal and make a determination whether substantial progress ... has been demonstrated.”

Because the information was incomplete, the NRC found that Entergy had **not demonstrated substantial progress** and declined to grant the full extension of discretion. This action reflected the termination principle introduced in the 2006 *Federal Register* notice.

NRC OVERSIGHT AFTER 2008

The NRC reaffirmed this conditional framework in its **June 20, 2009 follow-up letter** (ML091550665), which stated that discretion “remains in place only until NRC disposition of the site’s license amendment request to transition to NFPA 805” and that *“failure to maintain progress or compensatory measures would end the applicability of enforcement discretion.”*

From that point forward, Palisades remained bound by this dual-condition structure: active demonstration of progress and continuous maintenance of effective compensatory measures.

REGULATORY CONSEQUENCE OF NON-COMPLIANCE

When either condition fails, enforcement discretion terminates automatically.

For Palisades, this means that the deterministic safe-shutdown features identified in License Condition Table S2—including those that Holtec now seeks to defer for an additional two years—remain fully enforceable requirements under Appendix R and § 50.48(b).

Notably, Holtec is on record as having completed a large number of other facility modifications during this same period—changes that could reasonably have affected the plant’s previously approved fire-protection **defense-in-depth (DID)** or **safety-margin** analyses or contributed to actual “*substantial progress*”. Yet none of these modifications are discussed, re-evaluated, or even referenced in Holtec’s current September 23 submission.

This omission further demonstrates that Holtec’s filing does not meet the **§ 50.90 completeness standard** or the “**substantial progress**” criterion necessary to support continued enforcement discretion.

IMPLICATIONS FOR CURRENT PROCEEDINGS

Holtec’s September 23, 2025 supplemental submission provides neither the documentation nor the current analysis necessary to demonstrate “substantial progress” as required by the NRC’s established policy.

Because those prerequisites remain part of Palisades’ licensing basis, enforcement discretion cannot lawfully continue. Under the governing framework, the NRC must treat Holtec’s incomplete showing as a failure to meet § 50.90 and § 50.92 standards and re-impose full compliance with Appendix R until the required analyses and milestones are satisfied.

This remains the operative regulatory meaning of “substantial progress” and defines the benchmark against which Holtec’s current submittal must be evaluated.

PALISADES-SPECIFIC NRC STANDARD FOR DEMONSTRATING “SUBSTANTIAL PROGRESS” IN NFPA-805 TRANSITION

In Support of Contentions One, Two, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

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Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

LICENSING BASIS FOR DOCUMENTATION OF “SUBSTANTIAL PROGRESS”

The NRC’s own record for Palisades establishes a clear and binding precedent for how “substantial progress” toward NFPA-805 transition must be documented and maintained. In its June 20, 2009 letter titled Summary of Telephone Conference Call Held on May 21, 2009, Between the U.S. Nuclear Regulatory Commission and Entergy Operations, Inc. Regarding Progress on National Fire Protection Association Standard 805 Transition Activities (ADAMS ML091550665), the NRC memorialized the method by which Entergy Nuclear Operations, Inc. (ENO) was required to demonstrate progress.

“A teleconference was held between representatives of Entergy Nuclear Operations, Inc. (ENO) and the Nuclear Regulatory Commission (NRC) staff to discuss progress on the Palisades Nuclear Plant (PNP) National Fire Protection Association (NFPA) 805 transition activities. ENO submitted ‘Palisades NFPA 805 Project Milestones’ table ... which provides the list of NFPA 805 transition activities and their status. The licensee stated that all the tasks are on track ... On December 9, 2008, NRC staff granted additional enforcement discretion to Palisades. ENO ... made a commitment to conduct

monthly teleconference with the NRC staff to discuss progress on the Palisades Nuclear Plant NFPA 805 transition activities.”

PROJECT MILESTONE TABLE

Enclosure 1 to that letter contained the **Palisades NFPA 805 Project Milestones** table—an itemized project plan with dated milestones for each major task (Fundamental Fire Protection Program, Nuclear Safety Performance Criteria, Fire PRA development, Change Evaluations, Transition Report, and License Amendment Request). The NRC required these milestones to be updated and discussed in recurring monthly meetings until transition completion.

SUBSTANTIAL PROGRESS DOCUMENTED NOT INFERRED

This correspondence establishes that “*substantial progress*” was not to be inferred from partial completion or remaining task counts. Rather, it required **active, contemporaneous documentation** of each transition task, supported by milestone tracking and verified status reports. NRC staff oversight and periodic review were integral parts of the demonstration.

HOLTEC’S SUPPLEMENTAL LAR FILING IS FLAWED

Holtec’s September 23, 2025 License Amendment Request (ML25274A074) includes **no updated project-milestone table, no schedule of continuing transition activities, and no evidence of periodic NRC progress reviews** comparable to those documented in 2009. Holtec’s assertion that “only five NFPA-805 modifications remain” rests entirely on inference, without the supporting records or status documentation that the NRC previously required from Entergy as proof of “substantial progress.”

Accordingly, by the NRC’s own Palisades precedent, Holtec’s filing fails to meet the established standard for demonstrating “substantial progress.” Without an updated project-milestone plan,

dated status entries, or continuing NRC validation, the current record does not provide the affirmative documentation that the NRC historically used to justify continued enforcement discretion at this facility. Inference cannot substitute for the documented, reviewable evidence that the NRC required and maintained as the baseline for Palisades' NFPA-805 transition oversight.

ROAD MAP: HOLTEC'S SEPTEMBER 23, 2025 SUPPLEMENTAL LAR CONFIRMS ONGOING NONCOMPLIANCE WITH NRC'S REQUIRED SUBMITTAL CRITERIA FOR ENFORCEMENT DISCRETION

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

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ENFORCEMENT DISCRETION APPLICATION FLAWS NOT CORRECTED IN

HOLTEC SUPPLEMENT

Holtec's September 23, 2025 Supplemental License Amendment Request ("LAR Supplement") does not correct the deficiencies identified in Petitioners' Consolidated Petition (ML25250A001) and, in fact, expands them. As explained in **Contention Two** of that filing, the NRC's **December**

9, 2008 letter to Entergy Nuclear Operations, Inc. (ML083260577) — Palisades Nuclear Plant – Evaluation of the Request for an Extension of Enforcement Discretion in Accordance with the Interim Enforcement Policy for Fire Protection Issues During Transition to NFPA 805 — established four mandatory submittal requirements that must accompany any request to extend enforcement discretion under the NFPA-805 transition policy.

“In accordance with the new interim fire protection enforcement policy, in order to receive this extension, a licensee must:

1. Compile a list of all fire protection-related non-compliances and the related compensatory measures for those non-compliances.
2. Document that each Operator Manual Action put in place as a compensatory measure is feasible and reliable, in accordance with the guidance in Regulatory Issue Summary 2005-07, *‘Compensatory Measures to Satisfy the Fire Protection Program Requirements.’*
3. Submit a description of the physical modifications performed to address existing risk-significant fire-protection non-compliances.
4. Submit a status report of the transition, including a schedule of milestones, for completing the fire probabilistic risk assessment (PRA).”

The NRC further emphasized that these were not optional records but **required submittals** that must accompany the extension request:

“NRC staff will review the licensees’ submittal and make a determination whether substantial progress in their transition to an NFPA 805 licensing basis has been demonstrated.”

Thus, under NRC policy and the Palisades licensing basis, a licensee cannot obtain or extend enforcement discretion merely by asserting progress. It must submit the above information with its request so that NRC staff can determine whether “substantial progress” has been demonstrated.

ADDED SCOPE FOR ADDED TIME OF ENFORCEMENT DISCRETION

As Petitioners established in the *Consolidated Petition*, Holtec’s June 24, 2025 LAR failed to include any of these required elements. The September 23, 2025 Supplemental LAR, while expanding the scope of deferred modifications from two to five, again omits the information that the NRC explicitly required to accompany any request for continued enforcement discretion. Specifically, Holtec’s Supplemental LAR adds the following three new deferred NFPA-805 Table S-2 items:

- S2-19 – Replace fire-damaged cable insulation in Cable Spreading Room A.
- S2-23 – Install fire-rated enclosures for Division 1 and 2 Emergency Diesel Generator cables.
- S2-37 – Install additional fire-detection coverage in Auxiliary Building rooms A-102 through A-105.

These new items are in addition to the two previously deferred modifications:

- S2-13 – Component Cooling Water (CCW) Heat Exchanger Temperature Control Valve Modification.
- S2-15 – Spurious Operation of Reactor Head / Pressurizer Vent Valves.

By expanding the list of deferred modifications, Holtec's September filing increases—not reduces—the amount of required documentation missing from the record. For all five Table S-2 items now proposed for deferral, Holtec has again failed to:

- **Submit** a complete list of known fire-protection non-compliances and their corresponding compensatory measures;
- **Submit** documentation demonstrating that any credited operator manual actions are feasible and reliable under RIS 2005-07;
- **Submit** descriptions of completed or ongoing physical modifications addressing risk-significant deficiencies; and
- **Submit** a current status report and milestone schedule for completing the fire PRA and remaining NFPA-805 transition elements.

ENFORCEMENT FRAMEWORK GOVERNING PALISADES

The NRC's enforcement framework governing Palisades' fire-protection obligations derives from **two parallel sources of enforcement discretion.**

First, the 1978 NRC Order (ML020800287) imposed corrective actions under 10 C.F.R. § 50.48(b) and Appendix R following the Browns Ferry fire, requiring Palisades to implement deterministic fire-protection features that would ensure safe-shutdown capability. Because the NRC inspectors found Palisades failed to complete these modifications, the NRC issued an escalated enforcement action and civil penalty in 1996 (ML003705300), citing continued noncompliance with the 1978 order. Rather than rescind operating authority, the NRC again deferred enforcement—allowing Palisades to continue operation under compensatory measures and an explicit license condition to complete all Appendix R modifications.

That 1996 deferral remained in effect for the next twelve years. By 2008, Palisades, again, had not completed all required Appendix R modifications. Recognizing this continuing deficiency, the NRC and Entergy (then the licensee) reached a **new enforcement arrangement** documented in the December 9, 2008 NRC letter (ML083260577). This agreement permitted Entergy to transition from Appendix R to NFPA-805 compliance under 10 C.F.R. § 50.48(c), thereby taking advantage of the deferred-enforcement allowance provided by § 50.48(c)(2), which authorizes an implementation period for licensees adopting NFPA-805 in lieu of immediate compliance with Appendix R. However, that allowance was conditioned, again, on Entergy's submission of the four required items demonstrating "*substantial progress*." Thus, the 2008 NFPA-805 transition discretion did not replace the 1996 deferral—it **extended it**, preserving the same enforcement pathway but under the framework of § 50.48(c).

Accordingly, the four submittal requirements identified in the 2008 letter—(1) list of all fire-protection non-compliances and compensatory measures, (2) documentation of manual-action feasibility and reliability, (3) description of risk-significant physical modifications, and (4) status report with fire-PRA milestones—are tied to **both** enforcement tracks. They satisfy the continuing conditions of the 1978 / 1996 Appendix R enforcement deferral and the 2008 NFPA-805 transition discretion. Absent these submittals, neither basis for deferred enforcement remains valid, and Palisades reverts to full compliance obligations under 10 C.F.R. § 50.48(b) and Appendix R.

Petitioners therefore reaffirm that Holtec's September 23 Supplemental LAR remains **procedurally incomplete** and **substantively defective**. The addition of new deferred Table S-2 items without the required NRC-mandated documentation only enlarges the scope of

noncompliance. Petitioners respectfully request that the Board and the NRC Staff require Holtec to provide, with any future submittal, the full set of documents mandated by NRC correspondence ML083260577 and ML091550665, as well as the continuing obligations of ML020800287 and ML003705300, before any finding of “substantial progress” or any extension of enforcement discretion is granted.

ROAD MAP OF ORIGINS, THE TWO SETS OF REQUIRED SUBMITTALS—AND WHY HOLTEC MUST PROVIDE BOTH TODAY

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

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APPENDIX R / 1978–1996 ENFORCEMENT PATH (DETERMINISTIC TRACK)

license condition & submittal duties created in 1978

“The licensee may proceed with and is required to complete the modifications identified in Paragraphs 3.1.1 through 3.1.23 of the NRC's Fire Protection Safety Evaluation (SE) on the facility dated September 1, 1978. These modifications shall be completed as

specified in Table 3.1 of the SE in accordance with the schedule contained therein. In addition, the licensee shall submit the additional information identified in Table 3.2 of this SE in accordance with the schedule contained therein. In the event these dates for submittal cannot be met, the licensee shall submit a report, explaining the circumstances, together with a revised schedule.”

1996 escalated enforcement confirming continuing noncompliance

“your staff’s corrective actions for those issues were not effective and were not implemented within a time frame consistent with the potential safety significance of the deficiencies... The ability to maintain the plant in a safe shutdown condition, as required by the fire protection regulations, could only have been achieved by significant operator actions, troubleshooting, and repair activities to compensate for the design deficiencies.”

NRC Guidance ML16015A416 — Required Submittal Elements for Any LAR Proposing Changes to NFPA-805 Fire-Protection License Conditions

WHAT THIS ESTABLISHED / HOW IT APPLIES TODAY

- **Genesis.** The 1978 amendment and order, imposed **deterministic** Appendix R modifications and created an **ongoing duty to submit** required information/schedules (Table 3.2) and to file a **report with a revised schedule** if dates could not be met.
- **Continuity.** The 1996 civil penalty shows Palisades still hadn’t completed those obligations; NRC allowed continued operation only under **deferred escalated enforcement** conditioned on completing the Appendix R program (with appropriate compensatory measures).
- **Today.** Whenever Holtec seeks to **extend or alter** fire-protection obligations that descend from the 1978 order, it must provide the **Appendix-R-track submittals**: (a) status of required deterministic modifications; (b) any revised schedules; and (c) the **explanatory**

report required when original dates cannot be met—because those duties **flow from the 1978 license condition itself**.

2008 NFPA-805 TRANSITION / ENFORCEMENT-DISCRETION PATH

(PERFORMANCE-BASED TRACK)

Exact words (NRC conditions to obtain/extend enforcement discretion)

*“This revision states that an additional period of enforcement discretion may be granted on a case-by-case basis, **if a licensee has made substantial progress** in its transition effort... The enforcement discretion will continue in place, without interruption, until NRC disposition of the site’s LAR to transition to NFPA 805.”*

“In accordance with the new interim fire protection enforcement policy, in order to receive this extension, a licensee must:

1. *Compile a list of all fire protection related non-compliances and the related compensatory measures for those non-compliances.*
2. *Document that each Operator Manual Action... is feasible and reliable...*
3. *Submit a description of the physical modifications performed to address existing risk-significant fire-protection non-compliances.*
4. *Submit a status report of the transition, including a schedule of milestones, for completing the fire PRA.”*

WHAT THIS ESTABLISHED / HOW IT APPLIES TODAY

- **Genesis.** In 2008, NRC would **not** perpetuate the 1996 escalated enforcement discretion arrangement; it created a **new, NFPA-805-based discretion** that Palisades could use **only if it submitted** the four items above to demonstrate “*substantial progress*.”

- **Continuity.** That discretion remains **conditional today**; it lasts “until NRC disposition of the site’s LAR to transition to NFPA-805,” which presumes the required submittals **accompany the request** so Staff can evaluate progress.
- Today. Any Holtec request to continue relying on NFPA-805 enforcement discretion (e.g., to defer S-2 items) must include those four submittals with the request.

2018–2019 NFPA-805 LICENSE-BASIS SUBMITTALS (WHAT A COMPLIANT § 50.90 PACKAGE LOOKED LIKE), BASIS FOR FOLLOWING AS FAR AS APPLICABLE, THE FORM PRESCRIBED FOR ORIGINAL APPLICATIONS.

Entergy’s 2018–2019 NFPA-805 License Amendment Requests, RAI response, and supporting submittals, form the regulatory basis for the current Fire Protection License Condition, including Table S-2, and therefore serve as the governing reference for all subsequent submittals. Under 10 C.F.R. § 50.90, any amendment to that license condition must “fully describe the changes desired, following as far as applicable the form prescribed for original applications.” (LAR: ML18305B323, ML18305B322, ML18305B321, and RAI; ML19149A301, ML19149A302)

NRC Guidance ML16015A416 — Required Submittal Elements for Any LAR Proposing Changes to NFPA-805 Fire-Protection License Conditions

Exact words (Entergy’s 2018 § 50.90 content—what NRC expects when changing S-2)

“**Updated Attachment M, ‘License Condition Changes’**... clarify ten modifications and cancel six... referenced in the NFPA 805 transition license condition, 2.C(3)(c)2...

Updated Attachment S, Table S-2, ‘Plant Modifications Committed’... revised to reflect the

cancellation... and the clarification...

Updated Attachment W... ‘Fire Initiating Events...’ and ‘Fire Area Risk Summary.’”

Exact words (2019 Amendment 269—current license condition grounded on those submittals)

“The amendment cancels 6 modifications and clarifies 10... in Table S-2 ‘Plant Modifications Committed,’ which is referenced in the fire protection program transition License Condition 2.C. (3)(c)2. The amendment also extends the full compliance date for the fire protection program transition license condition.”

What this established / How it applies today

- Genesis. Entergy showed the § 50.90 form and content NRC requires to change NFPA-805 license-condition obligations: update Attachment M (license text), S (S-2 content/status), and W (risk results), plus the DID/safety-margin demonstrations in the LAR body.
- **Continuity.** NRC **approved** those changes as **Amendment 269**, which expressly ties the operative license condition to **Table S-2** and its implementation date.
- **Today.** Under § 50.90, any Holtec request to change schedule/scope of **S-2** must be in the **same form** as the approved basis: updated M/S/W, current PRA insights, and DID/safety-margin evaluations—in **addition** to the **four 2008 discretion submittals** if Holtec seeks to continue relying on enforcement discretion.

BOTTOM LINE FOR THE BOARD

- **Two distinct, cumulative submittal sets apply now:**
(A) Appendix R track (1978 order & its deferrals): status of deterministic

modifications; any revised schedules; and the **report explaining circumstances with a revised schedule** whenever dates slip.

(B) NFPA-805 discretion track (2008 policy): the **four required items** (non-compliance/compensatory-measure list; OMA feasibility; description of physical fixes for risk-significant issues; transition/PRA status and milestones) **submitted with** any request to extend reliance on discretion.

- **And when changing the license condition itself**, Holtec must meet the **2018–2019 § 50.90 template** (updated **Attachment M, S, and W** + DID/safety-margin/PRA bases) because that is the **approved form** of the current licensing basis for NFPA-805 at Palisades.

Put plainly: **Holtec, today, owes both sets**—the **Appendix-R-track** information (born of the 1978 order and kept alive by 1996 enforcement) **and the 2008 NFPA-805 discretion package**—**and** it must present any license-text change via a **complete § 50.90 package (M/S/W)** consistent with what NRC accepted in 2018–2019.

In summary, the coexistence of these two regulatory tracks—one deterministic, originating from Appendix R and NUREG-0737, and the other risk-informed under NFPA-805—means that any request to alter the fire-protection license condition must satisfy both procedural and substantive standards of 10 C.F.R. § 50.90. The rule explicitly requires that an amendment application “**fully describe the changes desired**” and “**follow the form prescribed for original applications.**”

Because Holtec’s submittal neither provides a complete description of the required Appendix R and NUREG-0737 bases nor mirrors the form and attachments used in prior approved NFPA-805 amendments, it fails to meet both elements of § 50.90’s dual submittal test.

ROAD MAP OF NRC REGULATORY ISSUE SUMMARY 2004-03 (REV. 1): ENFORCEMENT BOUNDARIES FOR FIRE-INDUCED CIRCUIT VULNERABILITIES

In Support of Contentions One, Two, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

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REGULATORY ISSUE SUMMARY 2004-03 (REV. 1): BRIDGING APPENDIX R

ENFORCEMENT AND NFPA-805 TRANSITION

The NRC’s *Regulatory Issue Summary 2004-03, Revision 1*, titled “*Risk-Informed Approach for Post-Fire Safe-Shutdown Circuit Inspections*,” reaffirmed and clarified the agency’s long-standing enforcement policy for fire-protection non-conformances identified under Appendix R and 10 C.F.R. § 50.48(b).

*“For licensees who assert that a particular nonconformance associated with a fire-induced circuit failure vulnerability does not constitute a violation of regulatory requirements, the NRC will document the nonconformance as an apparent violation. ... When licensees do not dispute that a violation of regulatory requirements has occurred with respect to a nonconformance, **enforcement discretion will be exercised not to cite***

the violation provided the licensees take prompt compensatory actions and implement corrective actions within a reasonable time.

*... NRC will judge the reasonableness of the corrective action schedule on the bases of the safety significance of the nonconformance, the established outage schedule, and the scope of the necessary modifications. **Compensatory measures will normally be acceptable as an interim measure, but the circuit vulnerabilities must be resolved.***”

ROLE WITHIN THE REGULATORY FLOW

RIS 2004-03 (Rev. 1) sits squarely between the 1996 Palisades Appendix R civil-penalty action (ML003705300) and the 2008 NFPA-805 enforcement-discretion letter (ML083260577). Where the 1996 enforcement established that deferred Appendix R deficiencies could be tolerated only if promptly corrected, RIS 2004-03 codified that principle into a formal, industry-wide enforcement framework. It made explicit that **enforcement discretion is conditional**—available only if the licensee implements timely compensatory measures and schedules permanent corrective actions “***within a reasonable time.***”

This policy became the direct regulatory bridge to the 2008 NFPA-805 transition discretion policy, which continued the same conditional standard under § 50.48(c): licensees could defer completion of fire-protection modifications only upon a documented showing of “*substantial progress.*” RIS 2004-03 therefore defines the enforcement boundary that remains applicable today—**compensatory actions are temporary; vulnerabilities must be resolved; and indefinite deferrals are not permissible.**

ANALYSIS AND RELEVANCE TO THIS PROCEEDING

RIS 2004-03 (Rev. 1) establishes the critical regulatory principle that compensatory measures are temporary and that enforcement discretion is conditioned on **prompt, scheduled corrective**

action. Fire-induced circuit vulnerabilities—such as those addressed by NFPA-805 Table S-2 modifications—must be fully resolved within a defined and reasonable time frame. Failure to do so converts a non-conformance into an enforceable violation under 10 C.F.R. § 50.48 and Appendix R.

Holtec’s September 23, 2025 “Supplemental” LAR directly contradicts this framework. Rather than demonstrating timely resolution of its known fire-protection vulnerabilities, Holtec:

- Expands the number of deferred NFPA-805 modifications from two to five;
- Provides no fixed completion schedule or outage-aligned milestones; and
- Proposes indefinite reliance on compensatory actions, with the option of later deleting the obligations through future proposed license condition amendments.

Under the standards reaffirmed in RIS 2004-03 (Rev. 1), such open-ended deferrals **cannot qualify for continued enforcement discretion that had their beginning from the 1996 finding of escalated enforcement.** The NRC’s own guidance specifies that discretion may be exercised only “*provided the licensees take prompt compensatory actions and implement corrective actions within a reasonable time.*” Holtec’s filing provides no information to evaluate either, and thus fails both the **procedural completeness requirement** of 10 C.F.R. § 50.90 and the **substantive “substantial-progress”** condition in the 2008 policy (ML083260577).

REGULATORY CONSEQUENCE

Because the NRC treats uncorrected circuit vulnerabilities as apparent violations absent prompt, scheduled corrective action, Holtec’s indefinite reliance on compensatory measures leaves the Palisades fire-protection licensing basis non-compliant. RIS 2004-03 (Rev. 1) therefore fits

directly into the historical regulatory chain—from GDC 3 to Appendix R, through the 1996 enforcement action, to 10 C.F.R. § 50.48(c) and the 2008 NFPA-805 policy—and reinforces Petitioners’ position that Holtec’s September 23 LAR submission is procedurally incomplete, substantively deficient, and inconsistent with the enforcement framework that governs all post-fire safe-shutdown requirements at Palisades.

This NRC language—stating that “*the NRC will document the nonconformance as an apparent violation*” when a licensee asserts that a fire-induced circuit vulnerability is not a violation—confirms that such discretion is **conditional and temporary**. It demonstrates that Palisades’ long-standing enforcement relief for unresolved fire-induced circuit vulnerabilities has never been absolute but instead remains contingent on NRC’s continuing ability to verify progress and corrective action. This further supports Petitioners’ position that Palisades’ enforcement discretion today cannot be presumed and must be re-justified through a complete § 50.90 submittal providing documentation for demonstrating substantial progress.

HOLTEC’S INCONSISTENT REPRESENTATIONS BETWEEN THE 2024 ACRS PRESENTATION AND THE SEPTEMBER 23 2025 SUPPLEMENTAL LAR

In Support of Contentions One, Two, Three, Four, Five, Six and Seven

Contention 1 – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)

Contention 2 – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)

Contention 3 – Omission of Required Technical-Specification Changes for S2-15 (Reactor-Coolant-System Vents) (Consolidated Petition)

Contention 4 – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)

Contention 5 – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)

Contention 6 – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)

Contention 7— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)

2024 ACRS OVERVIEW

Holtec’s September 23, 2025 filing (ML25274A074) requests an additional two-cycle extension for completion of the remaining NFPA-805 license-condition modifications, describing this delay as “*administrative in nature.*” Holtec asserts that five Table S-2 items provide, that their deferral, “*has no impact on defense-in-depth echelons,*” and that the request “*does not involve a significant hazards consideration.*”

Yet less than one year earlier, during the Advisory Committee on Reactor Safeguards (ACRS) Full Committee meeting on October 3, 2024 (ML24319A182), Holtec presented, under oath, a very different description of the same work to the NRC’s own technical advisory body. In that public meeting, Holtec’s slide titled “*SSC Reliability Improvement Modifications – NFPA 805 Modifications*” stated:

“Prior to shutdown, Palisades installed 11 most risk-beneficial modifications ... Palisades will complete the remaining 21 modifications for full NFPA 805 implementation. These modifications assure full program compliance and reduced fire risk.”

This sworn October 2024 statement represented Holtec’s official explanation to the NRC staff and ACRS of its “*substantial progress*” toward full NFPA-805 implementation—specifically that

all remaining license-condition modifications would be completed prior to restart. That substantial progress statement The listed examples—breaker coordination, fourth auxiliary feedwater pump (diesel-driven), fire-detection upgrades, fire barriers and conduit seals, doors and dampers, and revised logic to prevent spurious valve closures—are the same categories of changes that Holtec now re-labels in its September 23 LAR as “*risk-reduction*” or “*compliance*” modifications, attributing their deferral to “*supply-chain challenges*.”

CONTRADICTION OF THE PUBLIC RECORD

The ACRS record demonstrates that, as of October 2024, Holtec represented to both the NRC staff and the public—under oath—that completion of all NFPA-805 modifications was required to achieve “*full program compliance*” and that all such work would be finished prior to the planned 2025 restart. In contrast, Holtec’s September 2025 submittal identifies five—and potentially more—modifications that will not be completed before restart, and, given additional time, may be the subject of a future LAR seeking to remove the license condition altogether. The September 23, 2025 supplement attributes the lack of full license condition completion solely to “*supply chain challenges*,” even though Holtec’s own public statements and contemporaneous filings with the Commission, including the reference ACRS hearing, show that a broad range of other facility modifications were completed during the same period. That same filing further re-characterizes the remaining NFPA-805 modifications as partially optional, asserting that several have “*negligible*” risk importance and may be deferred through later LARs.

This shift constitutes a **material inconsistency in Holtec’s representations to the NRC** concerning the status and function of the NFPA-805 license-condition work. The company’s

2024 presentation framed the modifications as the hardware basis for compliance; its 2025 submittal reframes them as discretionary elements of a risk-ranking exercise. Such a reversal directly impacts the NRC’s ability to make the findings required by **10 C.F.R. § 50.90** and **§ 50.92**, because the earlier statements remain part of the agency’s official ACRS record and were relied upon by NRC technical reviewers.

REGULATORY SIGNIFICANCE OF ACRS STATEMENTS

- 1. Completeness under § 50.90** – A license-amendment application must “fully describe the changes desired.” Holtec’s September 23 filing cannot be complete when its underlying technical basis contradicts prior official statements asserting that these modifications were required for full compliance.
- 2. Accuracy of Information under § 50.9** – The Commission’s accuracy rule prohibits materially incomplete or misleading submittals. By omitting its prior ACRS representations and re-classifying required safety modifications as “minimal-risk” items, Holtec provides a materially incomplete picture of the plant’s NFPA-805 transition status.
- 3. Continuing Obligations under License Condition 2.C(3)(c)2** – The license condition, as issued in Amendment 269, obligates completion of the Table S-2 modifications to achieve full compliance with § 50.48(c). Holtec’s 2024 ACRS statements confirmed that these actions were the means to satisfy that condition. The 2025 filing’s claim of “administrative” extension conflicts with that obligation and requires a formal safety evaluation of the deferred physical modifications, not a schedule adjustment.
- 4. Implications for Defense-in-Depth and Operator-Action Feasibility**

Holtec’s September 23 filing asserts that deferring five modifications “does not impact any defense-in-depth echelons.” Yet the October 2024 ACRS record identifies those same modifications—particularly breaker coordination, spurious-closure prevention, and fire-barrier upgrades—as key contributors to **maintaining control-room operability and preventing spurious actuations** that could challenge operator workload during a fire event.

This discrepancy confirms Petitioners’ **Contention Six**, showing that Holtec has provided no updated analysis of operator workload, timing, or environmental factors despite removing or postponing elements that were originally credited to assure feasible manual actions under NFPA-805.

OGC ARGUMENTS SUPPORT PETITIONERS’ POSITION THAT THE ACRS RECORD DEFINES THE REGULATORY BASELINE

The NRC Office of General Counsel (OGC), in its formal Answer to Petitioners’ earlier filing in *Docket No. 50-255-LA-3*, directly relied upon the same October 3, 2024 Advisory Committee on Reactor Safeguards (ACRS) meeting that forms the evidentiary foundation of this contention. OGC stated:

*“The Petitioners’ Contact is also mistaken that the Staff has not publicly discussed HDI’s proposed sequencing. The Staff notes that it recently publicly discussed proposed sequencing of the restart-related actions at an **ACRS meeting on October 3**, and noted that **if all NRC requirements are met**, the Staff intends to issue all restart-related licensing actions (amendments, transfer, exemption) on the same day.”*

— NRC Office of General Counsel, Answer to Petition under 10 C.F.R. § 2.206, In the Matter of Holtec Palisades, LLC / Palisades Energy, LLC, Docket No. 50-255-LA-3 (ADAMS Accession No. ML24309A276), citing ACRS Full Committee Meeting, October 3, 2024 (ML24319A182).

This OGC statement establishes that the October 2024 ACRS meeting record is an official agency record relied upon by NRC counsel and staff to describe the regulatory sequencing of all restart-related licensing actions, including Holtec’s own representations, under oath, regarding full completion of the NFPA-805 license-condition work now at issue. The NRC’s legal counsel thereby confirmed that all restart-related actions—license amendments, transfer, and exemption—were expected to be issued concurrently, contingent upon satisfaction of all applicable NRC requirements, including completion of the governing license conditions.

By contrast, Holtec’s September 23, 2025 Supplemental License Amendment Request (ML25274A074) departs materially from that publicly represented sequence. Holtec now portrays required NFPA-805 license-condition modifications as “*administrative*,” “*minimal-risk*,” or deferrable, while seeking partial approval in advance of completing the modifications it previously described as essential for “*full program compliance*.” This inconsistency between Holtec’s 2024 sworn ACRS statements and its 2025 filing introduces a **material defect in the licensing record**.

Under **10 C.F.R. § 50.90**, an application must “*fully describe the changes desired*,” and under **10 C.F.R. § 50.9**, information provided to the Commission must not be materially incomplete or misleading. Because the NRC’s own OGC has affirmed that the October 2024 ACRS record defines the regulatory baseline for sequencing all restart-related actions, Holtec’s contradictory submittal cannot satisfy either the § 50.90 completeness standard or the § 50.9 accuracy requirement.

Accordingly, Petitioners submit that the OGC’s own reliance on the October 2024 ACRS record reinforces that the **ACRS testimony must be treated as part of the controlling regulatory**

baseline for this proceeding. Holtec’s subsequent re-characterization of those same NFPA-805 commitments as optional or administrative renders the September 23 LAR both **procedurally incomplete** and **substantively misleading**, and therefore subject to return or denial pending reconciliation with the agency’s previously established record.

Citations:

- NRC Office of General Counsel, *Answer to Petition under 10 C.F.R. § 2.206*, Docket No. 50-255-LA-3 (ML24309A276), at 25–26, quoting ACRS Full Committee Transcript, October 3, 2024 (ML24319A182).
- Holtec Palisades LLC, Supplemental License Amendment Request to Revise NFPA-805 Transition License Conditions, September 23, 2025 (ML25274A074).

Conclusion: ACRS Statements

Holtec’s public statements before the ACRS and its subsequent September 23 supplement present two incompatible narratives:

- **2024:** all 32 NFPA-805 modifications are essential for compliance and reduced fire risk.
- **2025:** five modifications have negligible risk benefit, their deferral is administrative, and no safety margin is affected.

These contradictions undermine the credibility and completeness of the September 23 LAR, demonstrate a substantive rather than administrative change, and reinforce Petitioners’ position that the filing fails to meet the requirements of **10 C.F.R. § 50.90**, **Regulatory Guide 1.205 § C.3.2**, and the continuing obligations of **License Condition 2.C(3)(c)2**.

Accordingly, the Board should view Holtec’s September 23 submittal as a **material re-**

evaluation of NFPA-805 compliance commitments, not a simple schedule extension, and should require Holtec to supply the full deterministic and defense-in-depth analyses necessary for NRC review.

HOLTEC’S FAILURE TO PROVIDE REQUIRED ATTACHMENTS UNDER NRC GUIDANCE ML16015A416 AND § 50.90

In Support of Contentions One, Two, Three, Four, Five, Six and Seven

***Contention 1** – Omission of the NUREG-0737 Deterministic Evaluation (Consolidated Petition)*

***Contention 2** – Failure to Provide Integrated Defense-in-Depth and Safety-Margin Evaluations (Consolidated Petition)*

***Contention 3** – Omission of Required Technical-Specification Changes for S2-15 (Reactor-Coolant-System Vents) (Consolidated Petition)*

***Contention 4** – Failure to Demonstrate Compliance with NFPA-805 License-Condition Commitments and Enforcement Requirements (Supplemental Petition)*

***Contention 5** – Failure to Provide Safety Evaluations for the Removal or Deferral of NFPA-805 Table S-2 Modifications (Supplemental Petition)*

***Contention 6** – Failure to Provide a § 50.59 and Deterministic Analysis for the Auxiliary Hot-Shutdown Panel DC Supply (S2-19) (Supplemental Petition)*

***Contention 7**— Failure to Provide Required Deterministic and § 50.59 Analyses for Deferring S2-37 (Turbine-Building Fresh-Air Fans / Ventilation & Habitability)*

INTRODUCTION

NRC Staff’s own guidance, “*Recommended Content for License Amendment Requests that Seek Changes to License Conditions that Were Established in Amendments to Adopt NFPA 805 but Have Yet to Be Fully Implemented*”(ML16015A416), makes clear that any licensee seeking to alter the scope, schedule, or form of NFPA-805 license-condition obligations must submit a

complete, auditable package containing updated versions of Attachment M (license-condition text), Attachment S (list of committed plant modifications), and Attachment W (change-in-risk results and associated Defense-in-Depth and Safety-Margin evaluations). These attachments are not optional; they are integral to NRC’s ability to make the safety findings required under 10 C.F.R. §§ 50.90 and 50.92.

FORM AND SUBSTANCE

While the guidance allows limited flexibility in *format*, it explicitly requires that each attachment be a **stand-alone update** that fully reproduces the current license condition, the entire list of NFPA-805 commitments, and the corresponding Fire-PRA and defense-in-depth analyses. The NRC established this requirement precisely to prevent piecemeal, undocumented, or narrative-only changes after a plant has received an NFPA-805 amendment.

Section 50.90 itself reinforces this requirement by mandating that any amendment request be made “*in the same form and manner as the original application.*” For Palisades, the controlling precedent is the **Entergy 2018 License Amendment Request** (ML18305B320 et seq.), which contained the full and properly formatted NFPA-805 attachments. That 2018 submittal—and the NRC’s subsequent approval in **Amendment 269 (ML19198A080)**—defines the standard for both form and content that Holtec must meet when requesting to modify the same license condition.

Under that established form:

- **Attachment M** must reproduce the *entire* revised license-condition text, showing exactly how compliance dates or modification commitments are being changed; partial narrative excerpts in a letter do **not** satisfy this requirement.

- **Attachment S** must provide a *complete, traceable table* of committed NFPA-805 modifications (Table S-2) and identify each item proposed for deletion, deferral, or revision.
- **Attachment W** must include the corresponding Fire-PRA change-in-risk results and all associated defense-in-depth and safety-margin evaluations.

HOLTEC’S SEPTEMBER 23 FILING, NO ATTACHMENT W

Joint Petitioners acknowledge that limited portions of Attachments M and S appear in alternate narrative form within Holtec’s September 23, 2025 filing. However, these fragments lack the proper form, structure, and traceability required by both § 50.90 and ML16015A416. Holtec’s submittal did not provide stand-alone Attachment M or S tables in the same manner as the Entergy 2018 amendment, and **no portion of the filing contains the information required for Attachment W—either in form or substance.** There is no Fire-PRA delta table, no quantitative risk results, and no updated defense-in-depth or safety-margin evaluation to demonstrate continued compliance with Regulatory Guide 1.174 and 10 C.F.R. § 50.48(c).

ENFORCEMENT DESCRIPTION REQUIREMENTS

In addition to the missing attachments, Holtec’s September 2025 filing omits the information necessary for NRC Staff to evaluate the **continuance of enforcement discretion** originally granted in response to the 1978 escalated enforcement action and later extended through Palisades’ NFPA-805 transition. **Under the NRC’s 2008 enforcement policy (ML083260577), continuation of discretion is conditioned on the licensee’s demonstration of “substantial**

progress” toward full implementation and on the maintenance of compensatory measures sufficient to preserve fire-protection safety margins.

As the NRC’s **December 9, 2008 correspondence** to Entergy Nuclear Operations, Inc. made clear, any request to extend enforcement discretion must include the following submittals:

1. A complete list of all fire-protection-related non-compliances and their associated compensatory measures;
2. **Documentation that each Operator Manual Action** used as a compensatory measure **is feasible and reliable**, consistent with Regulatory Issue Summary 2005-07, *“Compensatory Measures to Satisfy the Fire Protection Program Requirements”*;
3. **A description of the physical modifications** performed to address risk-significant fire-protection deficiencies; and
4. **A status report on the NFPA-805 transition**, including the schedule and milestones for completion of the fire Probabilistic Risk Assessment (PRA) and the licensee’s progress in each transition area—classical fire protection, nuclear safety performance criteria, non-power operation, monitoring program, and PRA development.

Holtec’s September 2025 filing contains **none of this required information**. It provides no documentation of *“substantial progress”* toward completing the remaining NFPA-805 modifications and no updated evaluation of the effectiveness or impact of existing compensatory measures under the proposed schedule extension. Without these elements, NRC Staff cannot determine whether continued enforcement discretion would be lawful or justified under the standards established in the 2008 enforcement policy and subsequent correspondence.

REGULATORY IMPACT

Accordingly, under § 50.90 and NRC guidance **ML16015A416**, Holtec’s September 23, 2025 submission fails both in form and substance. It does not follow the same structure as the original amendment, lacks the required Attachments M, S, and W, and omits the “substantial progress” and compensatory-action information necessary for evaluating enforcement discretion. For these reasons, the License Amendment Request is **procedurally and substantively incomplete as a matter of law.**

NEW CONTENTION FIVE, SIMILAR TO CONTENTION TWO: INDEFINITE AND CONTINGENT OUTCOMES AND FUTURE DELETIONS OF COMMITMENTS

ROADMAP — CONTENTION FIVE

Indefinite, contingent outcomes; failure to meet § 50.90 completeness; failure to demonstrate “substantial progress”; and omission of required NFPA-805 LAR content

I. Core Indefiniteness Defect (Facial § 50.90 Incompleteness)

(from Holtec Sept. 30 filing, ML25274A074;

*“This submittal **replaces** the Enclosure and attachments in Holtec Palisades letter PNP-2025-040, dated June 24, 2025.”*

*“The **risk-reduction modifications** are intended to be completed prior to the revised full compliance date **or otherwise addressed through additional LARs and NRC approval processes.**”*

*“However, as work continues towards plant startup, **there may be additional***

*modifications affected by current or unforeseen economic and/or supply chain challenges that, depending on the circumstances, warrant **extension** to the revised full compliance date as well.”*

Why it matters. § 50.90 applications must present a definite end state and “*fully describe the changes desired.*” An application that replaces the prior enclosure, expands scope, and then says the items **might be completed, or deferred, or deleted later via other LARs, and more items may be added** is not a “*change*” but a **menu of options**—facially incomplete under § 50.90.

Exact words (Reg. Guide 1.174, Rev. 3, ML17317A256)

“10 CFR 50.90 ... requires that ... an application for a license amendment must be filed ... **to fully describe the changes desired.**”

Proposed changes must be “*consistent with the defense-in-depth philosophy*” and “*maintain sufficient safety margins.*”

Why it matters. RG 1.174 reiterates § 50.90’s **completeness** and DID/margins prerequisites.

PRA insights can **support** but may not **substitute** for deterministic bases. Holtec’s open-ended, PRA-only framing cannot satisfy RG 1.174’s threshold expectations for a scrutable, complete change.

II. “Substantial Progress” Is a Current Licensing Basis, CLB Gate—And Holtec Shows Regression

(NRC Enforcement Discretion letter, Dec. 9, 2008, ML083260577)

To receive the extension, a licensee must:

1. “Compile a list of all fire protection related non-compliances and the related compensatory

measures”;

2. “Document that each Operator Manual Action ... is feasible and reliable”;
3. “Submit a description of the physical modifications performed to address existing risk-significant ... non-compliances”;
4. “Submit a status report ... including a schedule of milestones ... [for] fire PRA ... classical fire protection transition ... non-power operation ... [and] the NFPA-805 monitoring program.”

Why it matters. These conditions define the “**substantial progress**” gate for ongoing discretion and are part of the Palisades **CLB context**. Holtec’s Sept. 30 filing **expands** deferrals (adds S2-19, S2-23, S2-37), **admits** more may be added, and **reserves** later deletions—**this is regression, not “substantial progress.”**

Exact words (RIS 2004-03, Rev. 1)

“Enforcement discretion will be exercised not to cite the violation provided the licensees take prompt compensatory actions and implement corrective actions within a reasonable time.”

“Compensatory measures will normally be acceptable as an interim measure, but the circuit vulnerabilities must be resolved.”

Why it matters. NRC’s long-standing policy treats compensatory measures as **temporary**.

Holtec’s proposal to **extend/expand** deferrals, while holding out **possible** future deletions, is the opposite of **resolving** vulnerabilities.

III. Deterministic Foundations Still Apply (PRA ≠ Replacement)

(Reg. Guide 1.174, Rev. 3, ML17317A256)

This RG provides an approach for risk-informed changes that “*considers engineering issues and applies risk insights.*”

It expands guidance on defense-in-depth and states PRA is to be used “*in a manner that complements the NRC’s deterministic approach.*”

Why it matters. Holtec’s supplement **leans on PRA deltas** while omitting deterministic DID/margin demonstrations and the **updated attachments** that anchor the NFPA-805 licensing basis. Under RG 1.174, **risk insights support**—they do not **replace**—deterministic analyses.

IV. Missing NFPA-805 LAR Content (Required by CLB & NRC Guidance)

Exact words (2016 NRC content guidance to NEI, ML16015A416)

(paraphrased structure reflected in Entergy 2018 submittal and NRC’s later approval)

For NFPA-805 license-condition changes **before full implementation**, the LAR should provide:

(i) summary of all changes; **(ii) updated Attachment M** (license condition text), **Attachment S** (plant modifications), and **Attachment W** (area-wide change-in-risk tables); **(iii) PRA model revisions**; and **(iv)** an explicit **DID and safety-margin evaluation**.

Why it matters. Entergy’s **2018** LAR followed this template and NRC **approved** it in **Amendment 269**, making Table S-2 and its analytical underpinnings part of the **license**.

(Amendment 269, ML19198A080)

“The amendment cancels 6 modifications and clarifies 10 ... described in Table S-2, ‘Plant Modifications Committed,’ ... referenced in the fire protection program transition License Condition 2.C.(3)(c)2.”

Fire-protection changes without prior approval are limited and must not require a change to a technical specification or a license condition, and must also be consistent with defense-in-depth and maintain sufficient safety margins.

Why it matters

The license **anchors** Table S-2 and **conditions** risk-informed flexibility. Holtec’s Sept. 30 filing **does not** supply updated **M/S/W**, **PRA revisions**, or **deterministic DID/margins**—so it fails both the **NRC content** expectation and the **license’s** risk-informed guardrails.

V. Appendix R / Fire-Protection Baseline Still Binds Until Fully Transitioned

(10 CFR § 50.48(b); NRC web copy in record)

“With respect to all other fire protection features covered by Appendix R, all nuclear power plants licensed to operate before January 1, 1979, must satisfy the applicable requirements of Appendix R, including specifically Sections III.G, III.J, and III.O.”

Why it matters

Until Palisades **fully** transitions, Appendix R obligations **remain**. Open-ended deferrals (and contemplated deletions) without a **deterministic** case and **complete content package** are not permissible substitutes.

VI. Illogicalities (Why Holtec’s Justifications Don’t Cure Defects)

(RIS 2004-03, Rev. 1)

Compensatory measures are **interim**; vulnerabilities **must be resolved**; corrective actions within a **reasonable time**.

Why it matters

“*Supply chain*” is not a safety basis; “*writing a future LAR*” is not **corrective action**. Indefinite scope is **not completeness**; **deferral** ≠ **deletion** (and each path has **distinct** § 50.90 content requirements).

VII. Materiality (Why NRC Cannot Make § 50.92 Findings)

Missing pieces (indispensable to Staff findings):

- A **definite end state** and a **full description** of the change (§ 50.90; RG 1.174).
- A documented demonstration of “substantial progress” per ML083260577/ML091550665.
- The updated Attachments M, S, W, PRA revision summary, and explicit DID/safety-margin evaluation required by ML16015A416 and reflected in Amendment 269.

Why it matters

Without these, Staff cannot lawfully complete the § 50.92 determination (adequate protection / no significant hazards / margins & DID maintained).

VIII. Requested Relief (Targeted to Contention Five)

“Any future request to extend the completion date for License Condition 2.C.(3)(c)2 be supported by an affirmative NRC determination ... that the plant has demonstrated ‘substantial progress’ ... consistent with ... ML083260577.”

Ask the Board to find (for the Sept. 30, 2025 LAR, ML25274A074):

1. **Procedurally and substantively deficient** under §§ 50.90/50.92 for lack of a definite end state and missing indispensable content;
2. **No basis** for continued enforcement discretion because “**substantial progress**” has not been demonstrated (ML083260577/ML091550665);
3. Noncompliance with § 50.48(c)/NFPA-805 transition because required documentation of progress, compensatory measures, and mod status is absent;
4. Not reviewable until Holtec supplies a complete, auditable record (updated M/S/W, PRA changes, deterministic DID/margins, and the substantial progress showing);
5. Reaffirm that any future extension request must meet the same documentation standard and “follow ... the form prescribed for original applications” (i.e., a complete § 50.90 package).

=====End of Road Map=====

CONTENTION FIVE SUMMARY

The Holtec September 23 Supplemental LAR Fails 10 CFR § 50.90 and the “*Substantial Progress*” Requirement Because **It Seeks Approval of Indefinite, Contingent Outcomes and Defers Core Obligations to a Future LAR**. Holtec’s September 23, 2025 supplement expands the Table S-2 scope and then states:

“The risk-reduction modifications are intended to be completed prior to the revised full compliance date or otherwise addressed through additional LARs and NRC approval processes.”

“However, as work continues towards plant startup, there may be additional modifications affected by current or unforeseen economic and/or supply chain challenges

that, depending on the circumstances, warrant extension to the revised full compliance date as well.”

FAILURE TO MEET § 50.90 COMPLETENESS

- **Undefined end state.** Holtec leaves open whether Table S-2 items will be completed, deleted, or expanded in the future. 10 CFR § 50.90 requires the amendment application to “**fully describe the changes desired.**” A moving target premised on unknown outcomes cannot satisfy this requirement.
- **Contingent on later filings.** By saying current obligations will be “*otherwise addressed through additional LARs,*” Holtec is effectively asking the NRC to approve a **placeholder** amendment now, while the actual content will be defined later. Section 50.90 requires the application itself to contain the technical basis and complete change description—not defer them.
- **Improper reliance on process.** Holtec proposes to revise the license condition so that it points to this supplement and a “*future safety evaluation.*” That inverts the rule. § 50.90 requires the licensee to provide the **safety basis before approval**—not ask the Staff to fill in missing content.
- **PRA cannot replace deterministic bases.** The supplement relies on PRA deltas to justify open-ended deferrals. Regulatory Guide 1.174 requires PRA to **complement** deterministic evaluations, not substitute for them. Without deterministic demonstrations of defense-in-depth (DID) and margins, the submittal is incomplete.

Moreover, Regulatory Guide 1.174, *An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis* (ML17317A256),

explicitly directs that probabilistic insights are to **complement, not replace, deterministic safety analyses**. By relying solely on probabilistic assessments while omitting the required deterministic and compliance documentation, Holtec’s supplemental LAR departs from this foundational NRC principle and cannot satisfy § 50.90’s completeness standard or the Commission’s defense-in-depth expectations.

FAILURE TO DEMONSTRATE “SUBSTANTIAL PROGRESS”, CONTENTION FIVE

Also, In Support of Contention Two

NRC’s December 9, 2008 enforcement discretion letter (ML083260577) and its 2009 follow-up (ML091550665) required Holtec to demonstrate substantial progress in resolving fire protection noncompliances as a condition of continued enforcement discretion. That meant:

- compiling a **complete list** of noncompliances and compensatory measures;
- documenting feasibility of manual actions;
- describing completed physical modifications; and
- providing **milestone schedules** for outstanding modifications.

Holtec’s supplement fails these requirements by: (a) expanding the deferral list to include S2-19, S2-23, and S2-37; (b) admitting that additional items may be added; and (c) reserving the option to eliminate obligations altogether through later LARs. This is **regression, not progress**, and it violates the condition that enforcement discretion is contingent upon demonstrable corrective action.

III. Illogicalities in Holtec’s Argument

- **Supply chain is not regulatory justification.** Supply chain management is the licensee’s business responsibility. NRC enforcement discretion never allows commercial excuses in place of technical progress toward compliance.
- **LAR-writing is not corrective progress.** Holtec suggests it may spend the next operating cycle developing a new LAR to delete license conditions that are due now. But drafting paperwork is not progress toward fire protection compliance. If Holtec intended to delete obligations, it could have filed such an LAR during the last two years. Linking LAR-writing to “*supply chain challenges*” is illogical.
- **Indefinite scope is not completeness.** Admitting “*there may be additional modifications*” to defer makes the amendment inherently incomplete. NRC cannot evaluate a license change when the scope is undefined.
- **Deferral is not deletion.** Holtec conflates extending the completion date with deleting license conditions. These are distinct actions under § 50.90 and require different content, technical bases, and analyses.

FAILURE TO MEET NRC’S NFPA-805 LAR CONTENT REQUIREMENTS

(ML16015A416)

The NRC’s March 2, 2016 letter to NEI (ML16015A416), “Recommended Content for License Amendment Requests that Seek Changes to License Conditions that were Established in Amendments to Adopt NFPA 805 but have yet to be Fully Implemented,” establishes baseline content requirements for any such LAR. These include:

- updated Attachments M, S, and W to reflect the proposed changes;

- **PRA model revisions** consistent with the current licensing basis; and
- confirmation that defense-in-depth and safety margins are preserved.

As explained in Petitioners' original filing, because Entergy's 2018 NFPA-805 LAR (PNP 2018-040) incorporated these requirements in full, they are now part of the **current licensing basis (CLB)** at Palisades and from the §50.90 submission requirement, "following as far as applicable the form prescribed for original applications". The NRC's issuance of **Amendment 269 (ML19198A080)** formally embedded **Table S-2** into the license, with its problem statements and modification commitments grounded in those attachments and PRA/DID analyses. **Holtec's supplement fails to meet this CLB standard.** It provides no updated Attachments M, S, or W, no PRA model revisions, and no deterministic confirmation of DID and margins. Instead, it offers only PRA deltas and vague references to supply-chain delays.

V. Materiality

The NRC **cannot** make the required findings under § 50.92 because it is missing indispensable information:

- the LAR does not fully describe the change, violating § 50.90;
- Holtec has not demonstrated "substantial progress," which is a CLB requirement tied to NRC's 2008–2009 enforcement discretion; and
- the submittal omits the baseline content required by NRC's 2016 NFPA-805 LAR guidance, which is now part of the Palisades CLB via Amendment 269.

REQUESTED RELIEF, NEW CONTENTION FIVE

Petitioners respectfully request that the Board extend the relief previously sought in the **September 7, 2025 Consolidated Petition**, specifically **Requested Relief Item (5)**, to the issues presented in this new **Contention Five**.

As stated in the Consolidated Petition, Petitioners requested that:

“Any future request to extend the completion date for License Condition 2.C.(3)(c)2 be supported by an affirmative NRC determination—based on the licensee’s documented progress information—that the plant has demonstrated ‘substantial progress’ toward completing all NFPA-805 modifications, consistent with NRC’s December 9, 2008 policy letter (ML083260577) and prior enforcement precedent.”

For purposes of this **Supplemental Petition**, Petitioners now request that the Board find Holtec’s **September 23, 2025 License Amendment Supplemental Request (ML25274A074)** procedurally and substantively deficient because it fails to provide the indispensable information necessary for NRC Staff to make the required “*substantial progress*” determination under the 2008 Enforcement Discretion Policy.

Accordingly, Petitioners request that the Board:

- 1. Find that Holtec’s September 23, 2025 LAR does not satisfy the completeness requirements of 10 C.F.R. §§ 50.90 and 50.92**, because it omits the information essential for NRC to evaluate continued enforcement discretion, as required by the 2008 Enforcement Policy (ML083260577) and related NRC guidance (ML16015A416) and does not follow the “as far as applicable the form prescribed for original applications” requirement.

2. **Find that the LAR fails to demonstrate compliance with 10 C.F.R. § 50.48(c)** and its incorporation of NFPA-805 transition obligations, because Holtec did not provide the required documentation of progress, compensatory measures, or modification status needed to justify continued enforcement discretion.
3. **Find that the LAR fails to meet the information standards of 10 C.F.R. §§ 50.34(b), 50.36, and 50.59(c)(2)(viii)**, because Holtec did not include the deterministic evaluations, updated Attachments M, S, and W, or Defense-in-Depth and Safety-Margin analyses that NRC guidance (ML16015A416) requires for any NFPA-805 license condition change prior to full transition.
4. **Declare that, as a result of these omissions, the Holtec LAR cannot lawfully be evaluated by NRC Staff**, or form the basis for continued enforcement discretion under NRC’s 2008 policy until the licensee provides a complete and auditable record demonstrating “*substantial progress*” consistent with the criteria established in ML083260577.
5. **Reaffirm that any future request to extend the completion date for License Condition 2.C.(3)(c)2** must be accompanied by the same level of documentation and NRC finding of substantial progress described in the 2008 policy letter, as per the “following as far as applicable the form prescribed for original applications” requirement before further deferrals of NFPA-805 modifications may be considered.

Through this requested relief, Petitioners do not seek to direct NRC Staff actions, but rather to obtain a formal **Board finding** that the Holtec LAR fails to meet the procedural and substantive requirements of 10 C.F.R. §§ 50.48(c), 50.90, and 50.92 due to its omission of indispensable

information necessary for the NRC to make the required ‘substantial progress’ determination under the 2008 Enforcement Policy (ML083260577).

Such a finding is squarely within the Board’s authority under 10 C.F.R. § 2.309(i) to determine whether the application complies with NRC regulations and whether Petitioners have raised a genuine, material dispute with the LAR.

KEY ARGUMENTS FOR CONTENTION FIVE

These arguments, **indexed to the consolidated petition**, directly support Contention Five’s claim that Holtec’s supplement fails § 50.90 completeness, fails to show “substantial progress,” and omits required NFPA-805 content elements:

- **Argument 1 – Incomplete under 10 CFR § 50.90.** Section 50.90 requires that a license amendment request “fully describe the changes desired.” Holtec’s supplement instead proposes an indefinite scope—it may complete the modifications, defer them, delete them through later LARs, or even add new, unspecified items. This is not a description of a change; it is a set of options left unresolved. Such indeterminacy is facially incomplete under § 50.90.
- **Argument 6 – Defense-in-Depth (DID) Erosion.** By proposing to defer multiple Table S-2 obligations indefinitely, Holtec erodes DID. These modifications were license-conditioned precisely to ensure independent safe-shutdown paths in the event of fire. Treating them as discretionary “risk-reduction” items removes a critical layer of protection and undercuts the core principle of DID embedded in the NFPA-805 transition.

- **Argument 7 – Safety Margin Reduction.** Safety margins are preserved only when credited equipment and barriers are shown to perform under fire conditions. Holtec’s supplement includes no demonstration that margins remain adequate if S-2 items are not implemented. Without deterministic analyses or FSAR updates, the NRC cannot conclude that margins are preserved as § 50.92 requires.
- **Argument 8 – Enforcement Precedent.** The NRC’s 1996 Severity Level III civil penalty against Palisades (ML003705300) demonstrated the dangers of deferring or failing to complete fire protection modifications. At that time, NRC found reliance on compensatory actions rather than permanent fixes left shutdown capability uncertain. Holtec’s supplement repeats that error, proposing to expand deferrals while offering only PRA-based assurances.
- **Argument 9 – Distinct Submittal Requirements for Deletion vs. Deferral.** NRC regulations distinguish between a request to extend time for a modification and a request to delete a license condition. Holtec conflates the two, suggesting the same application covers both. But deletion requires a separate § 50.90 amendment with a deterministic safety case, updated PRA, and FSAR revisions. Holtec’s “we may later delete via another LAR” language blurs this distinction and renders the current filing incomplete.
- **Argument 12 – Misapplied Guidance.** Holtec cites PRA deltas under RG 1.174 but ignores the Guide’s explicit requirement to evaluate DID and margins deterministically. PRA alone cannot justify removal or indefinite deferral of compliance-driven modifications. This misapplication makes the supplement legally insufficient.

- Argument 13 – Selective Precedent.** Holtec portrays Table S-2 items as “risk-reduction” features that may be treated as optional. But NRC precedent makes clear that fire-protection obligations in license conditions remain enforceable until completed or formally amended. Selectively relabeling obligations to avoid compliance is inconsistent with established precedent and NRC practice.
- Argument 15 – Fire Protection Guidance.** NRC RIS 2004-03 emphasizes that vulnerabilities must be corrected and compensatory measures are only interim. Holtec’s approach—extending deferrals indefinitely and offering the possibility of later deletions—contradicts this guidance and undermines the enforcement discretion framework that Palisades has operated under since 2008.
- Argument 16 – Risk-Only Inadequate.** CDF/LERF numbers, even if small, cannot substitute for deterministic evaluations of safe-shutdown capability. By relying solely on PRA deltas, Holtec’s submittal fails both RG 1.174 and NFPA-805 requirements for complete, deterministic demonstrations of compliance.
- Argument 17 – No Substantial Progress Demonstrated.** NRC’s 2008 enforcement discretion letter required “substantial progress” toward completing modifications. Holtec’s supplement does the opposite: it increases the number of deferrals, admits more may be added, and suggests some may never be done. This is regression, not progress, and fails the condition for ongoing NRC enforcement discretion.

TABLE OF AUTHORITIES FOR CONTENTION FIVE

Table of Authorities, indexed to the Consolidated Petition, supporting Contention Five

NRC Guidance

- ML16015A416 – NRC Letter to NEI (2016), Recommended Content for License Amendment Requests that Seek Changes to License Conditions Established in NFPA-805 Amendments but not Fully Implemented (requires Attachments M, S, W; PRA updates; DID/margin confirmation).
- Regulatory Guide 1.174 (ML17317A256) – PRA complements deterministic analyses; applications must be “sufficiently complete and scrutable.”
- RIS 2004-03 (Rev. 1) – Fire protection CLB remains binding; compensatory measures are interim only.

NRC Enforcement / Discretion Documents

- ML083260577 – 2008 NRC Enforcement Discretion Letter (defines “substantial progress”).
- ML091550665 – 2009 NRC Progress Report (milestones).
- ML003705300 – 1996 Civil Penalty (Severity Level III) for fire protection deficiencies.
- ML020800287 – 1978 NRC Order imposing Appendix R requirements at Palisades.

Palisades Licensing Basis

- ML19198A080 – Amendment 269 (formally established Table S-2 as a license condition).
- ML18305B321, ML18305B322, ML18305B323 – Entergy’s 2018 NFPA-805 LAR submittals (established Table S-2 content; Attachments M, S, W; PRA/DID analyses).
- ML21125A327 – FSAR Rev. 35 (July 25, 2025 approval).

Federal Register / Adjudicatory

- ML25181A013 – July 16, 2025 FRN (noticed only S2-13 and S2-15; defective after scope expanded).

NEW CONTENTION SIX – FAILURE TO PROVIDE REQUIRED DETERMINISTIC AND § 50.59 MANUAL-OPERATOR-ACTION ANALYSES FOR DEFERRING S2-19 (ALTERNATE DC POWER SUPPLY FOR THE AUXILIARY HOT SHUTDOWN PANEL)

ROADMAP FOR CONTENTION SIX

This section demonstrates why **Holtec’s deferral of NFPA-805 Table S2-19 — the Alternate DC Power Supply for the Auxiliary Hot Shutdown Panel (AHSOP)** — constitutes a **substantive, safety-significant licensing-basis change** that cannot lawfully proceed without a complete deterministic and procedural analysis under 10 C.F.R. §§ 50.59, 50.90, and 50.92.

1. Purpose of the AHSOP and S2-19 Modification.

The AHSOP provides the alternate-shutdown capability required by Appendix R § III.L when control-room circuits are disabled by fire. Item S2-19 supplies the panel’s **independent DC power train**, ensuring the required separation and power independence for post-fire safe shutdown.

2. Regulatory Context.

Appendix R and § 50.48(b) require two physically separated trains of power, control, and instrumentation for safe-shutdown capability. Section 50.59 governs any change in the **method of performing or controlling** a credited safety function, including changes to **manual operator actions** and timing described in the FSAR. NEI 96-07, endorsed by Regulatory Guide 1.187, defines these actions as within the scope of § 50.59 evaluations.

3. Deferral Equals a Change in Method.

By postponing S2-19, Holtec eliminates the independent DC train and substitutes continued reliance on **manual operator actions** to restore or reroute power—thereby changing the credited method of controlling the function. Under § 50.59(c)(2), such a change requires prior NRC approval through a formal license amendment.

4. Absence of Required Evaluations.

Holtec's submittal omits:

- the deterministic Appendix R analysis demonstrating continued independence of the alternate-shutdown train;
- the § 50.59 evaluation describing and analyzing the changed manual actions; and
- the updated Attachments M, S, and W and defense-in-depth/safety-margin evaluations mandated by NRC guidance (ML16015A416).

5. Historical and Enforcement Context.

Palisades' long record of NRC findings on fire-protection and operator-action deficiencies—1978 Order, 1996 civil penalty (ML003705300), 2008–2009 enforcement discretion correspondence—demonstrates that reliance on unverified manual actions cannot be treated as an administrative or scheduling issue.

6. Why This Raises a Genuine Dispute.

The continued reliance on unverified manual actions and loss of the independent DC train implicate several § 50.59(c)(2) criteria and violate the completeness requirements of §§ 50.90 and 50.92. Absent these indispensable analyses, NRC cannot make the findings required for approval or continued enforcement discretion.

This roadmap guides the Board through the sequence of regulatory and factual deficiencies establishing **Contention Six** as both **procedurally admissible** and **substantively material** under § 2.309(f)(1).

=====End of Contention Six RoadMap=====

SUMMARY — FAILURE TO PROVIDE DETERMINISTIC AND § 50.59 EVALUATIONS FOR S2-19 (AHSOP INDEPENDENT DC POWER)

Holtec’s September 23, 2025 submission seeks to defer NFPA-805 Table S2-19, the modification that provides an independent 125-V DC power source for the Auxiliary Hot Shutdown Panel (AHSOP). This deferral removes, for an extended period, the only credited independent DC supply that ensures the AHSOP can function following a control-room fire or loss of normal DC power. By doing so without providing (1) a deterministic demonstration of Appendix R Section III.L compliance and (2) a 10 C.F.R. § 50.59 evaluation of the changed or extended manual operator actions needed to compensate for the missing DC power, Holtec’s filing violates 10 C.F.R. § 50.90 by failing to supply the indispensable information required for the NRC to perform the safety and completeness findings mandated by § 50.92. Absent those analyses, the application is procedurally incomplete and cannot lawfully support the Commission’s required determinations of safety, non-hazard, or adequate protection.

REGULATORY BASIS AND CITATIONS

1. Appendix R and 10 C.F.R. § 50.48(b)

Appendix R establishes the fire-protection features required to satisfy General Design Criterion 3 for plants licensed before January 1, 1979, including the requirement that,

“At least two independent and physically separated trains of systems capable of achieving and maintaining hot shutdown ... including independent instrumentation and power supplies”

must be provided. (10 C.F.R. Part 50, App. R § III.L.1 — Alternate Shutdown Capability)

2. 10 C.F.R. § 50.59(a)(5) and (c)(2)

“Procedures as described in the final safety analysis report (as updated)” include how SSCs are operated and controlled—*“including assumed operator actions and response times.”* A licensee must obtain a § 50.90 amendment before implementing a change that would

- *“result in more than a minimal increase in the frequency of occurrence of an accident,”*
- or
- *“result in a departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases or in the safety analyses.”*

3. NEI 96-07 (as endorsed by Reg. Guide 1.187)

“Method of performing or controlling a function means how a design function is accomplished as credited in the safety analyses, including specific operator actions, procedural step or sequence, or whether a specific function is to be initiated by manual versus automatic means.”

Substituting or extending manual actions for an automatic or self-powered capability constitutes a change subject to § 50.59.

4. 2008 10CFR50 Appendix R, Enforcement-Discretion Letter (ML083260577)

The NRC required Palisades to *“Document that each Operator Manual Action ... is*

feasible and reliable” as a condition for continued enforcement discretion pending NFPA-805 implementation.

DETAILED BASIS FOR CONTENTION

A. Regulatory and Design Origin of S2-19

The original **NFPA-805 application (ML12348A455)** identified a long-standing vulnerability in the AHSOP power configuration.

Section 4.2.4 (“Fire Area Transition”) and the Appendix R cross-reference tables (Attachments B and C) state:

“The Alternate Shutdown Panel is credited for achieving and maintaining hot shutdown following a control-room evacuation. Control power for this panel is provided by the 125 VDC system through the 1-1 battery and associated distribution panels. Loss of this DC source during fire-induced cable damage could prevent operation of valves and instrumentation required for alternate shutdown.”

“For fire areas 1 (Control Room) and 2 (Cable Spreading Room), where main control room abandonment is credited, transfer to and control of equipment from the EC-150 EC-150A panels are considered primary control station actions.”

To eliminate this single-train dependence, Entergy committed to:

“Provide an alternate, independent 125 V DC supply to the Alternate Shutdown Panel to ensure availability of shutdown capability under post-fire and loss-of-control-room conditions.”

This corrective action was recorded in Attachment S (Table S-2, ‘Plant Modifications Committed’) and later codified as S2-19 in the 2015 NFPA-805 license condition.

During the NFPA-805 transition, the shared-circuit AHSOP configuration was classified as a **Variance from Deterministic Requirements (VFDR)** under **10 C.F.R. 50 Appendix R § III.L**.

Table S-2 therefore required:

- *A dedicated DC feeder routed outside fire-vulnerable zones;*
- *Isolation fusing and circuit separation to prevent back-feed faults or spurious actuation;*
- and
- *Updated load-shedding and transfer logic for AHSOP independence.*

B. Regulatory Context and Purpose

Under **Appendix R § III.L**, alternate-shutdown capability must remain functional and powered by independent instrumentation and power supplies. The S2-19 modification directly implements this requirement and the overarching fire-protection program mandate of **10 C.F.R. § 50.48(c)**.

The **original 2012 LAR** also tied S2-19 to the NFPA-805 performance criterion for independent power sources (§ 3.3.5 “*Alternative Shutdown*”) and to the Appendix R deterministic baseline, **establishing that operator manual actions may assist but cannot replace the required independent DC feed.**

C. Deferring S2-19 Violates the Deterministic Independence Criterion

By deferring S2-19, Holtec leaves the AHSOP dependent on the same 125-V DC bus whose fire-induced cable damage was previously identified as capable of disabling the panel. This re-introduces the non-independence condition Appendix R was designed to eliminate and that S2-19 was expressly created to correct.

Consequently, the plant would no longer maintain the two independent trains of instrumentation and power required by § III.L until the modification is completed and tested.

D. Deferral Constitutes a § 50.59 Change in Method and Procedures

Without the independent AHSOP DC supply, operators must perform additional manual steps to restore or reconfigure DC circuits after a fire or fault, altering the credited sequence, timing, and location of actions. Under § 50.59(a)(5) and NEI 96-07, this change in the “*method of performing or controlling a function*” meets several § 50.59(c)(2) criteria—departure from method of evaluation (viii), increased likelihood of malfunction (ii), and creation of a different post-fire sequence (v, vi)—requiring a § 50.90 license amendment.

E. Manual-Action Feasibility and Reliability Are Undocumented

The NRC’s 2008 and 2009 correspondence required that each credited manual action be shown “*feasible and reliable under post-fire conditions.*” **Holtec’s September 23, 2025 LAR omits this documentation for AHSOP actions**—no analysis of operator workload, timing, access, environmental conditions, or coordination is provided. Without these evaluations, the filing fails both the continuing conditions for enforcement discretion and the information requirements of §§ 50.48(c), 50.90, and 50.92.

F. Fire-Induced Circuit Faults and PVC Cable Vulnerability Amplify Risk

RIS 2004-03 Rev. 1 and the NFPA-805 transition materials emphasize that **fire-induced hot shorts and thermoplastic-cable interactions** can cause “*maloperation or disablement of shutdown equipment.*” Palisades’ original electrical systems use PVC thermoplastic insulation qualified only to IPCEA S-19-81; such cables exhibit low ignition temperatures and high flame-spread rates. Absent the S2-19 independent DC source, these failure modes can propagate through the shared 125-V bus and disable the AHSOP—precisely the scenario Appendix R and NFPA-805 sought to prevent. This is a non-minimal increase in risk under § 50.59(c)(2)(i)–(ii).

G. DEPENDENCE OF COMPLETED NFPA-805 MODIFICATIONS ON THE OPERABILITY OF THE AUXILIARY HOT SHUTDOWN PANEL (AHSOP)

From the Original 2012 NFPA Application, ML12348A455,

“PNP safe shutdown analysis considered alternative shutdown in accordance with Appendix R, Sections III.G.3 and III.L... These instances included transfer of control to the primary control station, EC-150/EC-150A (Auxiliary Hot Shutdown Panel and the Auxiliary Hot Shutdown Monitoring Panel)... Under NFPA 805... EC-150/EC-150A would become the primary control station... if evacuation of the control room is required.”

“Action may be required to place EC-150, Auxiliary Hot Shutdown Panel, into service to allow control of auxiliary feedwater system components including operation of P-8B, Steam Driven Auxiliary Feedwater Pump, and steam generator flow control of valves CV-0727 and CV-0749.”

“Operators can locally align the Fire Protection System (FPS) to the suction of AFW pumps P-8A and P-8B or the Service Water System (SWS) may be aligned to the suction of AFW pump P-8C by manually opening valves... The water source for both the FPS and SWS is Lake Michigan which is an unlimited water supply.”

“Pressure control is maintained by the use of a charging pump and pressurizer PORVs or auxiliary spray valve. Natural circulation provides the ability to cool down the primary coolant system. Heat is removed through auxiliary feedwater supplied to one or both steam generators.”

These statements from the 2012 NFPA-805 Application (ML12348A455) confirm that Palisades’ credited **alternate-shutdown capability** is built entirely around the **Auxiliary Hot Shutdown Panel (AHSOP)**. From this protected control station, operators initiate and control the **steam-driven and diesel-driven AFW pumps**, throttle **CV-0727** and **CV-0749** to regulate steam-generator feedwater, operate **SG Power-Operated Relief Valves (PORVs)** and **atmospheric dump valves** for steaming and cooldown, and maintain pressure control through the **pressurizer**

PORVs or auxiliary spray. Long-term decay-heat removal is sustained by aligning AFW suction to either the **Fire Protection System (FPS)** or **Service Water System (SWS)**, both of which draw makeup from **Lake Michigan**, providing an effectively unlimited cooling source. Holtec’s September 23, 2025 deferral of **NFPA-805 Table S2-19**—the modification providing the **independent 125-V DC power supply for the AHSOP**—removes the very element that enables those credited functions. Without S2-19, the AHSOP depends on the same vulnerable DC bus identified in the 2012 NFPA-805 application as a single-train weakness, forcing reliance on unverified manual actions to restore or reroute power. This alters the licensed **method of performing and controlling** the Appendix R-credited shutdown function and therefore constitutes a change subject to **10 C.F.R. § 50.59** and **§ 50.90** review.

Because every completed NFPA-805 modification—including the newly installed **diesel-driven AFW pump**—depends on an operable and independently powered AHSOP, those “*completed*” items are **functionally moot** if the panel lacks its redundant DC supply. Absent S2-19 and the supporting deterministic and § 50.59 analyses, the plant cannot satisfy **Appendix R § III.L, 10 C.F.R. § 50.48(c)**, or the **reasonable-assurance** findings required by **§ 50.92**. This dependency reinforces that Holtec’s deferral request is not administrative but a substantive, safety-significant change in the licensed method of achieving safe shutdown.

MATERIAL ISSUE AND GENUINE DISPUTE (10 C.F.R. § 2.309(F)(1))

Material law: 10 C.F.R. §§ 50.48(b), 50.59, 50.90, 50.92.

Material facts:

- S2-19 was explicitly established in the 2012 NFPA-805 LAR to resolve a fire-induced loss-of-DC vulnerability in the AHSOP.
- Appendix R § III.L requires two independent and physically separated trains with independent power and instrumentation.
- Holtec's LAR defers completion of S2-19 without providing the required deterministic and § 50.59 evaluations or updated Attachments M, S, and W.
- No manual-action feasibility or reliability analysis is included.

Genuine Dispute #1 — § 50.59: Whether eliminating the independent DC train and substituting manual actions constitutes a change in method and departure from the approved evaluation methodology requiring NRC approval.

Genuine Dispute #2 — §§ 50.90/50.92: Whether the LAR meets application completeness and review sufficiency requirements without the Appendix R analysis, § 50.59 evaluation, and updated attachments; it does not.

REQUESTED RELIEF

1. Admit Contention Six.
2. Require Holtec to submit a complete § 50.90 package before restart, including:
 - a. Updated Attachments M, S, and W with Appendix R deterministic analyses for AHSOP independence;
 - b. A § 50.59 evaluation fully describing AHSOP manual actions (feasibility/reliability) per NEI 96-07; and
 - c. A Defense-in-Depth and Safety-Margin analysis per Reg. Guide 1.174.

3. If Holtec cannot supply these analyses prior to restart, direct that restart be prohibited until S2-19 is implemented or an approved amendment is issued.

NEW CONTENTION SEVEN – FAILURE TO PROVIDE REQUIRED DETERMINISTIC AND § 50.59 ANALYSES FOR DEFERRING S2-37 (TURBINE-BUILDING FRESH-AIR FANS / VENTILATION & HABITABILITY)

ROADMAP FOR CONTENTION SEVEN

This section demonstrates why Holtec’s deferral of NFPA-805 **Table S2-37 — Turbine-Building Fresh-Air Fans (V-210) / Ventilation & Habitability** — is a substantive, safety-significant licensing-basis change that cannot lawfully proceed without complete deterministic and procedural analyses under 10 C.F.R. §§ 50.59, 50.90, and 50.92.

Purpose of S2-37 and the Turbine-Building Ventilation Function.

S2-37 fire-qualifies the V-210 fresh-air fan’s structural supports and isolates associated power/control so that turbine-building ventilation remains operable under post-fire conditions. This credited ventilation limits smoke/heat migration through ducts, preserves operator habitability and access/egress for manual actions, and prevents secondary fire spread—all of which underpin alternate-shutdown success outside the control room.

Regulatory Context.

NFPA-805 Chapter 3 (Passive Fire Protection) and the plant’s Attachment S implementation require rated dampers/duct penetrations and qualified ventilation features to protect SSCs and maintain habitable conditions for safe-shutdown actions. The NFPA-805 license conditions (Amendments 254/269) obligate completion of Table S-2 modifications, with compensatory

measures maintained until completion; changes that alter the credited method of achieving post-fire habitability and operator performance are within the scope of § 50.59 evaluations and require § 50.90 approval when they meet § 50.59(c)(2) triggers.

Deferral Equals a Change in Method.

By deferring S2-37, Holtec removes the qualified, credited ventilation path and substitutes reliance on ad-hoc manual actions or compensatory measures in potentially smoke- and heat-compromised spaces. This changes the licensed method of maintaining operator habitability and supporting alternate-shutdown actions, meeting § 50.59(c)(2) criteria (change in method; increased likelihood of malfunction due to environmental stressors; departure from the evaluation basis used in the NFPA-805 transition).

Absence of Required Evaluations.

Holtec's filing omits:

- a deterministic Appendix R/NFPA-805 analysis of turbine-area ventilation, smoke/heat control, and duct/damper fire-spread limitations with S2-37 deferred;
- a § 50.59 evaluation identifying and analyzing changed/extended manual actions (timing, feasibility, access/egress, environmental constraints); and
- updated Attachments M/S/W reflecting the deferral of a habitability-dependent Table S-2 item and specifying compensatory measures.

Historical and Enforcement Context.

Palisades' NFPA-805 transition record actively tracked fire-damper testing/rating and credited specific HVAC duct segments at turbine/auxiliary interfaces for hazard adequacy, demonstrating

that ventilation path control and habitability are not discretionary add-ons but integral, credited elements tied to Table S-2 completion and license-condition compliance.

Why This Raises a Genuine Dispute.

Deferring S2-37 without the indispensable deterministic and § 50.59 analyses prevents the NRC from making the completeness and safety findings required by §§ 50.90 and 50.92. Because alternate-shutdown success depends on sustained operator presence in turbine-side areas, the unverified habitability/fire-spread control renders other “completed” NFPA-805 modifications functionally moot in post-fire scenarios.

This roadmap guides the Board through the sequence of regulatory and factual deficiencies establishing **Contention Seven** as procedurally admissible and substantively material under § 2.309(f)(1).

=====End of Roadmap=====

SUMMARY — FAILURE TO PROVIDE DETERMINISTIC AND § 50.59 EVALUATIONS FOR S2-37 (TURBINE-BUILDING FRESH-AIR FANS / HABITABILITY)

Holtec’s September 23 filing lists S2-37 among the deferred items but provides no evaluation of turbine-building ventilation or habitability, nor of the limitation of secondary fire spread via ventilation ducts and dampers that S2-37 is meant to ensure. NFPA-805’s Chapter 3 Passive Fire Protection requirements explicitly encompass fire dampers and duct penetrations (and their ratings) to protect safety-related structures, systems, and components (SSCs) and to prevent fire and smoke migration. Palisades’ NFPA-805 transition record further documents multiple fire-damper tests and 3-hour rating confirmations, as well as an HVAC duct segment in the turbine/

AFW interface credited for hazard adequacy. Because License Amendments 254 and 269 require completion of Table S-2 modifications—with compensatory measures maintained until completion—to sustain NFPA-805 compliance, Holtec’s proposal to defer S2-37 without a deterministic ventilation and habitability analysis, a **Defense-in-Depth (DID) analysis**, and a § 50.59 evaluation of changed manual actions is procedurally incomplete under §§ 50.90 and 50.92.

DEFENSE-IN-DEPTH (DID) UNDER APPENDIX R

Appendix R establishes the principle of *Defense-in-Depth* (DID)—the use of multiple, independent and redundant barriers to prevent fires, detect and control them, and protect essential safety functions if they occur. In practical terms, DID means no single failure or degraded barrier can compromise the ability to achieve and maintain safe shutdown.

The turbine-building fresh-air fan (S2-37) is one of those DID barriers: it provides ventilation to protect both equipment and operators from heat and smoke, ensuring that alternate-shutdown actions can still be performed if other systems are affected by fire. By omitting a DID evaluation, Holtec failed to demonstrate that sufficient layers of protection remain in place or that loss of this barrier would not reduce overall safety margin—one of the key analyses required by both Appendix R and NFPA-805 § 2.2.

REGULATORY BASIS AND CITATIONS

NFPA-805 Chapter 3 / Passive Features. Passive features cover fire dampers and duct/barrier penetrations as part of protecting SSCs from fire “effects,” with explicit link to NFPA 90A (HVAC/ventilation).

Attachment S / Table S-2 License Condition. Table S-2 modifications must be implemented to complete transition to § 50.48(c); compensatory measures must be maintained until completion. Habitability & Safe Shutdown Principle (GDC-19 lineage). Operators must be adequately protected so the plant can be safely operated or shut down under design-basis conditions—habitability is not optional when alternate panels are used.

Damper rating/testing tracked to Attachment S. Palisades' NFPA-805 record shows active tracking and 3-hour rating confirmations for fire dampers, keyed to Attachment S.

HVAC Ducting in Turbine/AFW Interface. An HVAC duct segment between the AFW Pump Room and the Turbine Building is explicitly credited as part of a hazard-adequacy finding—underscoring that ventilation/duct path control is a credited element.

DETAILED BASIS FOR CONTENTION

A. Regulatory and Design Origin of S2-37

The NFPA-805 transition established passive-feature controls for **ducts/dampers** and **barriered penetrations** (NFPA-90A; fire dampers) as part of Chapter 3 fundamentals. Palisades' record ties multiple **fire-damper** ratings and **HVAC duct** segments that separate **turbine** and **auxiliary** areas to Attachment S tracking. S2-37 is the specific **Table S-2** modification that **fire-qualifies** the **V-210 fresh-air fan supports and associated cabling** so that credited **ventilation/habitability** exists when fires disable normal feeds.

B. Purpose and Deterministic Requirements (Appendix R / NFPA-805)

When the Alternate Hot Shutdown Panel, **AHSOP** is used after control-room abandonment, operators depend on **habitable** turbine-side spaces and protected access routes to execute

manual actions. The habitability principle in NRC’s post-TMI requirements is explicit: operators must be **adequately protected** so the plant can be **safely shut down**. In NFPA-805 space, that assurance is provided by **rated dampers/ducts/penetrations** and **qualified fan supports/cabling** that control **smoke/heat spread** and maintain workable environments.

C. Deferring S2-37 Violates the Deterministic Habitability/Spread-Control Criterion

Absent the S2-37 qualification of the fresh-air fan V-210 and its fire-isolated power/control, the credited ventilation for turbine-building areas is unverified under post-fire conditions. That breaks the deterministic chain used to credit AHSOP manual actions (loss of breathable air, heat/smoke accumulation, and secondary fire spread via ventilation), contradicting the Chapter 3 passive-feature protections and NFPA-90A expectations embedded in the Palisades record.

D. Deferral Constitutes a § 50.59 Change in Method and Procedures

With S2-37 deferred, Holtec effectively **changes the method** of maintaining post-fire **operator habitability**—from a **qualified, credited ventilation capability** to reliance on **ad-hoc manual actions/compensatory measures** in a potentially **uninhabitable** environment. That alters the **sequence, timing, and feasibility** of operator actions necessary for alternate shutdown, meeting § 50.59(c)(2) triggers (change in method; increased likelihood of malfunction due to environmental stressors; departure from the evaluation basis used in the NFPA-805 transition and Attachment S).

E. Absence of Required Evaluations

Holtec’s submittal does not include:

- (i) **a deterministic Appendix R/NFPA-805 analysis** demonstrating that turbine-area ventilation, habitability, and duct/damper fire-spread controls remain adequate with S2-37 deferred;

- (ii) a **Defense-in-Depth (DID) evaluation** showing that sufficient independent barriers remain in place to protect operator habitability and prevent loss of safe-shutdown capability if the credited ventilation system is unavailable;
- (iii) a **§ 50.59 evaluation** identifying and analyzing changed manual actions, access/egress, and environmental constraints; and
- (iv) **updated Attachments M/S/W** reflecting the deferral of a Table S-2 habitability-dependent modification, which the NFPA-805 license condition ties to continued compensatory measures until completion.

F. Dependence of Completed Modifications on Operable Turbine-Side Ventilation

The NFPA-805 record shows fire-damper qualification and an HVAC duct segment at the AFW–Turbine interface as credited elements; those are integrally related to keeping operators in the space to run AHSOP-coordinated actions (AFW lineups/valves, local breaker operations, etc.). Without S2-37, these completed items become **functionally moot** whenever the environment cannot support **sustained operator presence**—contrary to the **habitability** principle (safe operation or shutdown) and the **license condition** requiring S-2 completion (or maintained compensatory measures) before claiming full NFPA-805 compliance.

MATERIAL ISSUE AND GENUINE DISPUTE (10 C.F.R. § 2.309(F)(1))

Material law: 10 C.F.R. §§ **50.48(c)**, **50.59**, **50.90**, **50.92**; NFPA-805 **Chapter 3** (Passive Fire Protection), including **NFPA-90A** integration for ventilation/dampers (as reflected in Palisades’ NFPA-805 transition record).

Material facts:

- **Table S-2** is a **license-condition obligation**; S-2 modifications must be completed, with **compensatory measures** maintained until completion.
- Palisades' NFPA-805 record **credits** ventilation-path controls via **fire dampers** and an **HVAC duct** segment at the **turbine/AFW** interface.
- Deferring **S2-37** removes the **qualified** turbine-building **fresh-air** capability (V-210 supports/cabling), leaving **habitability** and **fire-spread control** unverified for spaces where **AHSOP** actions are performed.
- Holtec's LAR **omits** the deterministic ventilation/habitability analysis and the **§ 50.59** evaluation of changed/extended **manual actions**.

Genuine Dispute #1 — § 50.59 (Change in Method): Whether eliminating the qualified, credited **ventilation/habitability** path and substituting reliance on **manual actions/compensatory measures** is a **change in the method** of maintaining alternate shutdown that requires prior NRC approval.

Genuine Dispute #2 — §§ 50.90/50.92 (Completeness/Findings): Whether the LAR can be found **complete** and capable of supporting **no-significant-hazards** and reasonable-assurance findings **without** (i) a deterministic Appendix R/NFPA-805 **ventilation/habitability** analysis; (ii) a **§ 50.59** evaluation for changed manual actions; and (iii) **updated Attachment S** treatment of S2-37 with compensatory measures identified. It cannot.

REQUESTED RELIEF

1. Admit Contention Seven.

2. Require Holtec to submit, **before restart**:
 - a. An **Appendix R/NFPA-805 deterministic** analysis demonstrating that **turbine-area ventilation/habitability** and **duct/damper** fire-spread controls remain adequate with S2-37 deferred (including heat/smoke control, access/egress, and duration of operator exposure).
 - b. A **§ 50.59** evaluation that fully describes and analyzes **manual actions** and environmental constraints that would replace the credited ventilation (timing, feasibility, dose/heat/smoke, access).
 - c. **Updated Attachments M/S/W**, plus a **Defense-in-Depth / Safety-Margin** evaluation consistent with Reg. Guide 1.174 expectations.
3. If Holtec cannot supply these analyses prior to restart, direct that restart be **prohibited** until **S2-37** is implemented **or** an approved license amendment is issued that demonstrably maintains **habitability** and **prevents secondary fire spread** consistent with NFPA-805 Chapter 3 and **Attachment S** license-condition obligations.

STANDING: INPUTS FROM HOLTEC'S SUPPLEMENTAL LAR

Summary (why the supplemental scope and new Contention Five further support standing). This supplement petition based on the Holtec supplemental LAR, strengthens, not weakens, the Joint Petitioners' previously recognized standing. Without indispensable evaluations included in Holtec's LAR submittal, the NRC cannot properly evaluate the true safety significance of requested changes to the License Conditions. The three new scope

additions (S2-19 alternate DC for the AHSOP, S2-23 electrical coordination/selectivity, and S2-37 turbine-building fresh-air fan fire-rating) are all license-conditioned fire-protection measures credited for safe-shutdown under fire conditions. Deferring them (and potentially deleting them later) increases the credible risk of offsite radiological consequences that the ASLB has already acknowledged justifies proximity-based standing. This aligns with the petition’s original technical nexus between post-fire capability and radiological harm and fits squarely within judicial standing’s injury-in-fact analysis for persons living within the 50-mile EPZ.

Holtec’s new Contention Five trigger—asking the NRC to approve an amendment with indefinite, contingent outcomes and open-ended deferrals—tightens the standing nexus on all three elements:

- **Injury in fact.** The supplement widens the set of fire-protection functions that may be unavailable at restart (or eliminated later), heightening the plausible radiological risk to residents within 50 miles recognized by the Board.
- **Traceability.** The potential injury is fairly traceable to the challenged licensing action because the amendment itself would authorize the deferral (and signal possible deletion) of the protective measures that ensure a safe-shutdown path under Appendix R/ NFPA-805. That causal chain is the same pathway the Board already uses to assess proximity-based risk in Palisades restart matters.
- **Redressability.** The requested relief—denial or return of the LAR as incomplete, admission of Contention Five, and a requirement that Holtec file discrete, complete amendments for each S-2 item—meaningfully reduces the risk by preventing restart or

continued operation on an undefined licensing basis. That is the type of favorable decision the Board has already recognized can redress Petitioners' potential harms.

Finally, the original standing section affirmed that all Joint Petitioners reside or own property within the 50-mile EPZ (many within 5 miles) and already have been found to have standing in the related Palisades restart proceeding. Those facts remain unchanged; the expanded scope and open-ended amendment now at issue only increase the safety-significance of the licensing action that affects Petitioners' interests.

Conclusion for Standing (Supplemental Impacts). Petitioners ask the Board to carry over its prior standing determination and recognize that the newly added Table S-2 deferrals and new Contention Five's challenge to an indeterminate license condition further solidify standing under both the proximity presumption and the traditional injury-traceability-redressability test. The nature of the proposed action (expanded deferrals of fire-protection modifications required for safe shutdown) and the significance of the source term (full-power operation) continue to support standing for all Joint Petitioners in this proceeding.

REQUESTED RELIEF (SUPPLEMENTAL; CROSS-REFERENCED TO THE CONSOLIDATED PETITION REQUEST FOR RELIEF ITEMS)

To ensure a complete, scrutable record and to protect public participation rights and safety, Petitioners respectfully request that the Board grant the following relief. Each item is **in addition to and consistent with** the **Prayer for Relief** in the consolidated petition (cross-references noted parenthetically):

1. **Deny or Return the Supplemental LAR as Incomplete** under § 50.90, for failure to fully describe the change and to provide required NFPA-805 content and deterministic analyses. (Indexes to Consolidated Petition Relief seeking denial/return for incompleteness.)
2. **Require Discrete, Complete § 50.90 Amendments** for each S-2 item (S2-19, S2-23, S2-37) and for any proposed deletion of a license-conditioned modification, each including: deterministic DID/safety-margin evaluations, FSAR updates, documentation of compensatory measures and completed modifications, milestone schedules, and updated Attachments M, S, W with any necessary PRA model revisions (per ML16015A416). (Indexes to relief requiring full and proper amendment scope and content.)
3. **Suspend Staff Action on Any NSHC Determination** tied to the supplemental LAR until Holtec files the discrete, complete amendments described above and the Board rules on the adequacy of notice and scope. (Indexes to relief requesting NSHC hold/suspension pending completeness and proper notice.)
4. **Direct Re-Notice via a New Federal Register Notice (FRN)** if the Staff intends to proceed on the expanded or altered scope, so that the public has a meaningful opportunity to petition under 10 C.F.R. § 2.309 consistent with the expanded S-2 items and Holtec’s “otherwise addressed through additional LARs” language. (Indexes to relief seeking proper notice and hearing opportunity.)
5. **Clarify that “Supply Chain” Assertions Are Not a Safety Basis** for continued enforcement discretion or license-condition delay, and direct Holtec to submit **technical**,

deterministic demonstrations required by the CLB for any future request to defer or remove S-2 obligations. (Indexes to relief seeking conformance with Appendix R/ NFPA-805/CLB standards.)

6. **Admit Contention Five** as set forth herein and **admit the supplemental bases** for Contentions One and Two as applied to S2-19, S2-23, and S2-37. (Indexes to relief requesting admission of new/supplemental contentions.)
7. **Set a 30-Day Schedule** for Petitioners to file targeted supplements incorporating any additional specifics the NRC or Holtec **discloses** regarding the expanded scope, non-public bases, and any future S-2 items Holtec intends to add or delete. (Indexes to relief requesting scheduling accommodations to address new scope.)
8. **Any Further and Appropriate Relief** necessary to ensure compliance with § 50.90, § 50.92, NFPA-805 implementation guidance (ML16015A416), and the Palisades CLB as established by Amendment 269 and related documents.

CERTIFICATION UNDER 10 C.F.R. § 2.304(D)

I certify under penalty of perjury that the statements made in this filing are true and correct to the best of my knowledge and belief, that this Supplemental Petition has been prepared in good faith, and that all references to NRC records are to publicly available materials accessible in ADAMS.

Executed in accordance with 10 C.F.R. § 2.304(d) this 01 day of November, 2025.

/s/ Alan Blind

Alan Blind

Pro Se Petitioner and Representative for Joint Petitioners

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing *Supplemental Petition to Intervene (Final Supplemental Filing)* have been served in accordance with the Commission's E-Filing Rule, **10 C.F.R. § 2.305**, on the NRC Office of the Secretary, the Office of Commission Appellate Adjudication, the Office of the General Counsel, and all participants in this proceeding through the NRC's Electronic Information Exchange (EIE) system.

Executed in accordance with **10 C.F.R. § 2.304(d)** this 1st day of November, 2025.

/s/ Alan Blind

Alan Blind

Pro Se Petitioner and Representative for Joint Petitioners