

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE COMMISSION**

In the Matter of	)	
HOLTEC DECOMMISSIONING	)	Docket No.50-255-LA-4
AND HOLTEC INTERNATIONAL	)	
PALISADES, LLC	)	September 2, 2025
(Palisades Nuclear Plant - Request for	)	
License Amendment)	)	

**NOTICE OF APPEAL OF ASLB DECISION LBP-25-06, BY BEYOND NUCLEAR,
DON'T WASTE MICHIGAN, MICHIGAN SAFE ENERGY FUTURE, THREE MILE
ISLAND ALERT AND NUCLEAR ENERGY INFORMATION SERVICE
AND BRIEF IN SUPPORT OF APPEAL**

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NOTICE OF APPEAL

Beyond Nuclear, Don't Waste Michigan Clean Energy Future, Three Mile Island Alert and Nuclear Energy Information Service, by and through counsel, pursuant to 10 C.F.R. § 2.311, hereby give notice of their appeal to the U.S. Nuclear Regulatory Commission (Commission) from the Atomic Safety and Licensing Board's (ASLB) ruling, LBP-25-06, "Memorandum and Order (Ruling on Intervention Petitions)" (August 5, 2025) (ASLB Memorandum and Order) in this proceeding.

Petitioners appeal from and seek reversal of the Atomic Safety and Licensing Board's underlying determinations and the Board's overall decision, which denied admission for adjudication of Petitioners' proffered contention concerning steam generators at the Palisades Nuclear Plant.

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Organizations)

BRIEF IN SUPPORT OF APPEAL

I. INTRODUCTION

Holtec Decommissioning and Holtec Palisades (Holtec) have submitted to the NRC Holtec's plan to restore the permanently shut down Palisades Nuclear Plant (Palisades) to power operations. As a shut down plant, Palisades has been in decommissioning status until recently.

One aspect of this plan to return Palisades to operational status is a license amendment request to allow the use of metal sleeves to repair the tubes on the Palisades steam generators.¹ Petitioners, based on their expert's opinion, asserted in their request to intervene that installing sleeves on the generator tubes provides inadequate protection, both as a fix for the deteriorated steam generators, which are safety-related equipment and as a means of providing functioning steam generators for the restart. Petitioners further asserted that, in fact, the steam generators must be replaced before Palisades could be allowed to restart.

On June 16, 2025, Petitioners filed their Petition to Intervene, challenging the LAR to allow the installation of the sleeves.² The LAR would revise the Permanently Defueled Specifications to allow the use of Framatome Alloy 690 sleeves to repair defective steam generator tubes as an alternative to removing the tubes from service by plugging the tubes or replacing the steam generators. On August 5, 2025, the Atomic Safety and Licensing Board (ASLB) issued an Order finding that Petitioners' contention was not admissible.³

A. Background of the Palisades Steam Generators

The steam generators at Palisades have been problematic for many years. Palisades began operation in 1971. The steam generators were replaced in 1991.⁴ Then on May 10, 2006, Consumers Energy, the then-owner of Palisades, made a presentation to Michigan regulatory authorities requesting approval to sell Palisades. One of the reasons given nearly a generation ago for the proposed sale was the expected need to replace the steam generators yet again.⁵ And in the July 5, 2022 funding request to the Department of Energy for support to restart Palisades,

¹ Holtec License Amendment Request, 2/11/2025, Accession Number ML25043A348.

² Petition to Intervene (ADAMS ML25167A334).

³ ASLB Memorandum and Order (August 5, 2025) (ADAMS ML25217A522).

⁴ Beck, Charney & Clark, *Palisades Nuclear Plant Steam Generator Replacement*, 54 Proceedings of the American Power Conference, 1295-1302 (1992).

⁵ <http://archives.nirs.us/reactorwatch/licensing/kampsconsbrifeinf051806.htm>, slide 2.

Holtec requested \$510 million to replace those aged steam generators.⁶

The current technical specifications for Palisades allow for plugging the steam generator tubes.⁷ The LAR requests approval to install metal sleeves on the tubes. As Petitioners' expert Arnold Gundersen explains, however, the history of the steam generator problems at Palisades have been ongoing for years and have been exacerbated since Holtec acquired Palisades. From the moment that Holtec acquired Palisades in 2022, the steam generators have not been properly maintained to allow them to be returned to service.⁸ They have not been placed in what is termed wet layup. That allowed corrosive chemicals to attack the steam generators' internal structures. That, in turn, leads to a probable release of radioactive material. In fact, as Mr. Gundersen explains, sleeving the generator tubes will actually increase stress cracking, leading to a probable release of radioactive material.⁹

II. STANDARDS FOR ADMISSIBILITY OF CONTENTIONS

In rendering its ruling, the ASLB purported to set forth the standards for admissibility of contentions, but simply recited the 6 criteria for contentions in 10 C.F.R. § 2.309(f). The Board then determined that, based on those criteria, the Petitioners' contentions did not satisfy the "strict admissibility standards." But the § 2.309(f) criteria are not as strict as the ASLB claimed, nor, had they been properly applied, would they compel the ruling made by the Board on the facts and issues in this case to deny admissibility of Contention 1.

A. Reflexive Insurmountability

The pleading requirements of 10 C.F.R. § 2.309(f)(1) do not encompass the overly burdensome standards asserted by the ASLB. The standards are not meant to be insurmountable.

⁶ *Holtec International Application for Federal and State Support to Enable the Resurrection of the Palisades Nuclear Generation Station*, submitted July 5, 2022, p. 7/42 of pdf.

⁷ Holtec LAR, p. 1/126 of pdf.

⁸ Gundersen Declaration, p. 13-14, 16.

⁹ Gundersen Declaration, p. 18-20.

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), 49 NRC 328, 335 (1999) (explaining that the rule should not be used as a “fortress to deny intervention”) (internal quotation marks and citation omitted); see *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant and Big Rock Point Site), 96 NRC 1, 104-05 (2022) (admitting for hearing portions of a contention that raised a genuine material dispute with the application). The rule serves to assess the scope, materiality, and support provided for a proposed contention, to ensure that the hearing process is “properly reserve[d] . . . for genuine, material controversies between knowledgeable litigants.” *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), 75 NRC 393, 396 (2012) (internal quotation marks omitted). Contentions need only have “some reasonably specific factual or legal basis.” *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), 82 NRC 211, 221 (2015) (internal quotation marks omitted); see also *Entergy Nuclear Operations*, 96 NRC at 45 (rejecting argument that did not “establish a supported genuine dispute with the application”). Specificity is key: mere speculation is insufficient, see, e.g., *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), 58 NRC 207, 216 (2003) (rejecting an argument that, at best, was based on speculation); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), 51 NRC 193, 208 (2000) (finding “bare assertions and speculation” insufficient to trigger a contested hearing), and a petitioner may not simply reference documents without clearly identifying or summarizing the portions of the documents on which it relies. See *Fansteel, Inc.* (Muskogee, Oklahoma Site), 58 NRC 195, 204 (2003); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), 29 NRC 234, 240-41 (1989)). While petitioners need not prove their contentions at the admissibility stage, the contention admissibility standards do require petitioners to “proffer at least some minimal factual and legal foundation in support of

their contentions.” *Duke Energy Corp., supra*, 49 NRC at 334. Based on the foregoing, the ASLB erred and grossly exceeded the admissibility limitations of 10 C.F.R. § 2.309(f) by requiring Petitioners to present enough evidence to prove the merits of their contentions at the admissibility stage.

The decision in *Pacific Gas and Electric Co. (Diablo Canyon Independent Spent Fuel Storage Installation)*, 98 NRC 1 (2023), further demonstrates this misuse of admissibility criteria. That proceeding concerned a hearing request from San Luis Obispo Mothers for Peace (SLOMFP) challenging an application from Pacific Gas and Electric Company (PG&E) to renew its license to store spent nuclear fuel in an onsite independent spent fuel storage Installation (ISFSI) for 40 years beyond the current license expiration date. The petitioner contended that PG&E’s analysis of its financial qualifications to operate the ISFSI failed to satisfy 10 C.F.R. § 72.22(e) because the analysis was based on the invalid assumption that PG&E would not seek renewal of the operating licenses for the Diablo Canyon reactors. PG&E countered that the contention was inadmissible for failing to satisfy the materiality requirement in § 2.309(f)(1)(iv) because “PG&E is financially qualified to continue operating the ISFSI regardless of whether the reactor licenses are renewed.” However, the ASLB determined that PG&E’s argument went to the merits, and since the issue at that point was only preliminary, that the petitioner had satisfied the contention admissibility requirements.

Another way to contextualize this point is to analogize contention admissibility to the procedural motion to dismiss practice used in federal court. Pursuant to Federal Rule of Civil Procedure (FRCP) 12(b), a motion to dismiss is evaluated by accepting all factual allegations in the complaint as true and drawing all reasonable inferences in favor of the plaintiff. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009). If, by doing so, the complaint fails to plausibly state a claim, then

dismissal is warranted. Beyond the Rule 12 stage, if facts are developed, a party can file a motion for summary judgment, where the judge reviews substantive facts to determine if there is a genuine factual dispute. That procedure is analogous to the motion for summary disposition provided in 10 C.F.R. § 2.710, which becomes available only after a contention is admitted for hearing and the substantive phase of litigation begins.

The current contention admissibility standards were adopted in 1989 out of concern that the previously existing standards allowed intervention for petitioners who had no real basis for their contentions.¹⁰ The NRC's Federal Register commentary published along with the newly-adopted procedural regulations states that the new contention rule, codified as 10 C.F.R. § 2.309(f)(1), does not require a petitioner to make its substantive case at the contention admissibility stage, but merely to indicate what facts or expert opinions provide the basis for the contention. The Commission's Federal Register comments state that a petitioner need only include some alleged facts in support of its position sufficient to indicate that a genuine issue of material fact or law exists. This screens out a contention where the petitioner has no facts to support its position and where the intervenor wants to use discovery or cross-examination as a fishing expedition. Most importantly, the NRC's interpretative comments contain this statement:

*[The rule] was intended to parallel the standard for dismissing a claim under Rule 12(b)(6) of the Federal Rules of Civil Procedure. The intent of Rule 12(b)(6) is to permit dismissal of a claim where the plaintiff would be entitled to no relief under any set of facts which could be proved in support of his claim.*¹¹ (Emphasis added).

Shortly after the 1989 amendment to the admissibility criteria, the Commission had occasion to address the intent and purpose of the rule in one of its rulings:

The 1989 revisions to the contention rule thus insist upon “some factual basis” for an admitted contention. 54 Fed. Reg. at 33,171. The intervenor must “be able to identify some facts at the time it proposes a contention to indicate that a dispute exists

¹⁰ 54 Fed. Reg. 33,168 (1989)

¹¹ *Id.* at 33171.

between it and the applicant on a material issue.” *Id.* These requirements are intended to “preclude a contention from being admitted where an intervenor has no facts to support its position and [instead] contemplates using discovery or cross-examination as a fishing expedition which might produce relevant supporting facts.” *Id.* Although in quasi-formal adjudications like license renewal an intervenor may still use the discovery process to develop his case and help prove an admitted contention, contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by “some alleged fact or facts” demonstrating a genuine material dispute. *Id.* at 33,170.

Duke Energy Corp., supra, 49 NRC at 335.

Finally, the NRC said this in the 1989 Federal Register discussion:

[A]t the contention filing stage the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion.¹²

Thus the formal Commission policy is clearly not to use the threshold stage of an intervention petition as a place for dispositive litigation on the merits, yet that is what has happened in this Palisades LAR appeal. Since the 1989 rule amendment, the NRC Staff and permit applicants have created axioms that misconstrue the intent of the rule with which they have then nudged licensing boards and sometimes the Commission itself to normalize and apply overly strict contention admissibility expectations.

Holtec claims that the Petitioners have mischaracterized the 1989 rule revision regarding contention admissibility standards. But, it is Holtec that fundamentally mischaracterizes both the 1989 rule's intention and the 2004 amendments to 10 C.F.R. § 2.309 by selectively citing Commission precedent to argue that Petitioners' Rule 12(b)(6) analogy has been “expressly rejected.”¹³ When they compared 10 C.F.R. § 2.309 to Rule 12(b)(6), Petitioners correctly noted that the NRC’s 1989 Federal Register commentary intentionally analogized contention admissibility to Rule 12(b)(6) standards. The subsequent 2004 amendments, which “incorporat[e] the longstanding contention support requirements of former § 2.714,” effectively

¹² 54 Fed. Reg. 33168, 33171 (1989).

¹³ Holtec Answer p. 15.

reinforced Petitioners' position that "[A]t the contention filing stage the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion."¹⁴ This principle contradicts the recurring insistences by Holtec and the NRC Staff that 10 C.F.R. § 2.309 requires rigorous merits proof at the admissibility stage. The shibboleth that NRC regulations are "strict by design" does not mean that they are impenetrable.¹⁵ Nor did the 1989 or 2004 procedural regulations convert contention admissibility into a mini-trial on the merits.

Notably, Holtec's Answer describes exactly the kind of contention that would not be admissible:

[A]n expert opinion that merely states a conclusion (*e.g.*, the application is 'deficient,' 'inadequate,' or 'wrong') without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion" and whether it provides a basis for the contention. A "bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient," rather "a petitioner must provide documents or other factual information or expert opinion" "to show why the proffered bases support [a] contention."¹⁶

What Holtec and the NRC Staff are perpetrating here, however, is a regime of heightened scrutiny in contention pleading in which they claim an opportunity to rebut competing factual allegations at the initiating petition stage. This converts the threshold commencement of NRC litigation into a merits adjudication reliant on mere attorney representations and not even genuine facts. The regulations, however, require the Board and the Commission to evaluate Petitioners' contentions under the standard as originally intended, applying the contention admissibility standards which were enunciated in 1989.

¹⁴ 54 Fed. Reg. 33168, 33171 (1989), cited by Appellants in their Petition to Intervene at p. 19, fn. 8.

¹⁵ See *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-4, 65 NRC 281, 303-304 (2007) (explaining that the strict contention rule requires only a "proffer [of] at least some minimal factual and legal foundation in support of their contentions").

¹⁶ Holtec's Answer, p. 13.

Despite clear precedent that the standards for admissibility of contentions are not heavy and must not be used as a “fortress to deny intervention,” the ASLB, as more specifically enumerated below in the discussion of its decision on Petitioners’ contention, contravened precedent. The Board held Petitioners to the unreasonable and inflated standards for admissibility about which the Petitioners warned the ASLB both in their Petition to Intervene and Reply in Support.

B. Petitioners Have Satisfied Their Burden Of Stating An Admissible Contention

Petitioners satisfied their burden under 10 C.F.R. § 2.309 to articulate an admissible contention. Arnold Gundersen’s expert declaration provided a detailed technical analysis that identified specific deficiencies in the tube sleeving methodology¹⁷ even as he also explained broader implications. Such factual proffers negated any charge that Petitioners’ contention is speculative. Again, the Commission should evaluate Petitioners’ contention under the standard as originally intended, not by applying the improper conditions of heightened scrutiny that Holtec advocates, which would inappropriately compel Petitioners to prove their case prematurely¹⁸ in order to preserve the chance to prove their case – a tautological exercise that makes sense only to Holtec.

III. THE ASLB ERRED IN REJECTING PETITIONERS’ CONTENTION 1

A. Description of Contention 1

¹⁷ Gundersen Declaration, *passim*.

¹⁸ See, *Florida Power and Light Co.*, (St. Lucie Nuclear Power Plant, Unit 1), 27 NRC 627, 629-631 (1988) (rejecting Applicant’s claim “that *Catawba* imposes on an intervenor the duty to include in its contentions a critical analysis or response to any applicant or NRC Staff positions on the issues raised by the contentions which might be found in the publicly available documentary material. Such detailed answers to the positions of other parties go, not to the admissibility of contentions, but to the actual merits of the contentions.”). Here, however, Holtec and NRC Staff seek to undermine Petitioners’ intervention by alleging that the contention and supporting material must be more comprehensive than is legally required at the contention admissibility stage. Petitioners are not required to preemptively rebut every argument Holtec and NRC Staff seek to make, but rather, need only establish that their contention is well-founded, which Mr. Gundersen’s expert declaration affirms.

Petitioners' Contention 1 asserts that the steam generators at Palisades are defective and damaged because the steam generator tubes are corroded or otherwise defective and damaged. Holtec's proposal to repair the defective and damaged tubes by installing metal sleeves, instead of plugging the tubes or replacing the generators entirely, will make the tubes more likely to crack, than would installing plugs. Therefore, the LAR to allow sleeving should not be granted and Holtec should be required to replace the steam generators. Petitioners reinforced their position with expert testimony that exposed Holtec's incompetent oversight of the steam generators when for two years corrosive, contaminated water was left in the plumbing.

A license amendment may be allowed only when the amendment complies with the considerations that govern the issuance of initial licenses. 10 C.F.R. § 50.92(a). Those considerations include whether the license amendment adversely affects the health and safety of the public, and whether the performance of each safety feature of the proposed activity has been demonstrated through either analysis, appropriate test programs, experience, or a combination thereof. 10 C.F.R. §§ 50.40 and 50.43(e)(1)(i).

Petitioners' expert, Arnold Gundersen, delineated the history of steam generator damage at Palisades.¹⁹ The initial steam generators at Palisades lasted only 19 years before being replaced in 1991. In 2006, Consumers Energy wanted to sell Palisades because of a number of problems, including problems with the steam generators. Holtec knew when it acquired Palisades in 2022 that the steam generators would have to be replaced; replacement of the steam generators was one of the items Holtec asserted as a basis for the funding request from the Department of Energy.²⁰

¹⁹ Gundersen Declaration, p. 4-8.

²⁰ *Holtec International Application for Federal and State Support to Enable the Resurrection of the Palisades Nuclear Generation Station*, submitted July 5, 2022, p. 7/42 of pdf, <https://beyondnuclear.org/wp-content/uploads/2023/10/7-5-22-42-page-Holtec-application-to-DOE-for-NC-funds-to-restart-Palisades.pdf>

The current technical specifications for Palisades allow only for plugging the steam generator tubes.²¹ The LAR requests approval to install metal sleeves in the tubes. As Mr. Gundersen explained, however, the steam generator problems at Palisades have been ongoing for years and have been exacerbated since Holtec acquired Palisades. After Holtec acquired Palisades in 2022, the steam generators were not properly maintained to allow them to be returned to service.²² They were not placed in wet layup until mid-2024. This allowed corrosive chemicals to attack the steam generator tubes. The corrosion likely eroded the thickness and compromised the integrity of the steam generator tube walls (which are only as thick as a dime), increasing the probability of a release of radioactive steam and boiling water. In addition, as Mr. Gundersen explained, sleeving the generator tubes will actually increase stress cracking, contributing further to the probability of a release of radioactive material.²³

Another factor which Holtec problematically failed to consider in the repair of the steam generators is the concept of hideout.²⁴ Hideout describes the presence of corrosive chemicals between the tubes and the tube sheets in the steam generator. As Mr. Gundersen explained, Holtec's narrow focus on repairing the tubes by sleeving ignores the more significant issue of hideout. Mr. Gundersen explained that Holtec's MSLB testing does not accurately model the actual conditions that now exist inside the damaged Palisades steam generators.²⁵ Not only the tubes that Holtec proposed to sleeve, but all tubes inside the steam generators, will be under continuing chemical attack and will be further weakened if the NRC allows these old steam generators to be restarted. The MSLB tests performed by Holtec do not include any further degradation of all the tubes caused by hideout under hot operating conditions, but instead present

²¹ Holtec LAR, p. 1/126 of pdf.

²² Gundersen Declaration, pp. 13-14, 16.

²³ *Id.*, pp. 18-20.

²⁴ *Id.*, pp. 30-31, 33.

²⁵ *Id.*, p. 31-32.

the cold-water condition of only the tubes identified as damaged in the September 2024 inspection report. The MSLB testing, in other words, does not provide information about how the tubes will perform under the extreme heat and water pressure conditions of actual reactor operations.

Even if plugging the tubes on the Palisades steam generators were preferable to installing sleeves, Mr. Gundersen concluded that the question must be subsumed to the looming prospect that the Palisades generators are so degraded by Holtec's own mistakes that each generator must be replaced. Holtec's reliance on the experience at Watts Bar 2, although not comparable to the situation at Palisades in many respects, is relevant insofar as the steam generators at Watts Bar had to be replaced after 18 months.²⁶ And in contrast to the steam generators at Watts Bar, the Palisades generators are more seriously degraded because of Holtec's failure for more than two years to stabilize Palisades in wet layup. The ASLB acknowledged Holtec's failure to place the steam generators in wet layup based on Holtec's own admission:

Notably, Holtec itself concedes "[t]here is no dispute that, immediately after the plant was shut down, Holtec did not manage the plant as if it were in a normal refueling outage by, among other things, maintaining operational [wet] layup conditions in the steam generators."²⁷

Despite the considerable factual basis for the Petitioners' contention, the ASLB held that the contention was not admissible, although the ASLB had determined that there was a valid basis for the contention.²⁸ The latter determination was predicated on the Gundersen declaration, wherein Mr. Gundersen said:

Installing metal sleeves upon the steam generator tubes at Palisades will increase the stress on the tubes and the tube sheet. Increasing the stress on the tubes and the tube sheet

²⁶ *Id.*, p. 21-24.

²⁷ ASLB Memorandum and Order at p. 16.

²⁸ *Id.*, p. 15 ("Taken together, the Petition and the Gundersen Declaration are sufficient to state the basis of the contention as required by 10 C.F.R. § 2.309(f)(1)(ii).").

will cause further cracking of the tubes. If steam generator tubes develop cracks, radioactive water can leak into non-radioactive steam, which will be released into the environment. If cracking is severe, a nuclear meltdown can occur.²⁹

B. Scope of this Proceeding

The ASLB ruled, erroneously, that certain alleged aspects of the contention were beyond the scope of this proceeding. Before addressing the specific points of the ASLB decision, it is necessary to define what it means for a contention to be “within the scope of the proceeding.” Petitioners’ original filing pointed out that the scope encompassed both Holtec’s justification of the license amendment along with Petitioners’ challenges to Holtec’s assertions:

The scope of this proceeding is the consideration of Holtec’s LAR and whether the amendment should be granted to install metal sleeves on the tubes of the steam generators at Palisades. In support of the LAR, Holtec has submitted documentation from Framatome, the manufacturer of the sleeves, with the assertion that the sleeves will provide adequate safeguards for the tubes and the generator. Petitioners’ contention challenges those assertions in Holtec’s documentation, so it is within the scope of this proceeding.³⁰

Petitioners agree that the scope of the proceeding is established by the Commission’s hearing notice in the Federal Register. What they disagree with is the constricted interpretation given the hearing notice by the Licensing Board.

“[A] proposed contention challenging a license amendment must confine itself to the ‘*health, safety or environmental issues fairly raised by [the license amendment]*.’”³¹ (emphasis added). Petitioners assert that the safety issues enumerated in Contention 1 were “fairly raised” by Holtec’s license amendment. The hearing notice in this case states pertinently:

The NRC is considering issuance of an amendment to RFOL No. DPR–20 for Palisades, located in Van Buren County, Michigan. By letter dated February 11, 2025 (ADAMS Accession No. ML25043A348), Holtec Palisades, LLC submitted a license amendment request for the Palisades Nuclear Plant. The proposed amendment request

²⁹ ASLB Memorandum and Order at p. 15, citing Petitioners’ Petition to Intervene, p. 20.

³⁰ Petition to Intervene, p. 20.

³¹ *Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), CLI-81-25, 14 NRC 616, 624 (1981).

would revise the technical specifications to allow for the use of Framatome Alloy 690 sleeves to repair the defective steam generator tubes as an alternative to removing the tubes from service by plugging. *This will support the return to service of the steam generators as part of the potential resumption of power operations at the Palisades facility.*³² (Emphasis added).

Holtec alleged that adding the alternative of sleeving to tube plugging would “support the return to service of the steam generators” as part of the Palisades restart. Petitioners differed with Holtec’s opinion that sleeving would accomplish that result because it was not a comprehensive solution to problems their expert identified. Arnold Gundersen postulated that despite sleeving repairs there remains an unanalyzed and significant potential for failure of steam generator tubes. Petitioners’ fact-based opinion is that sleeving would not support the return to service of the steam generators because Holtec’s failure to maintain the generators in wet layup opened up a Pandora’s box of other potential failures. Petitioners’ contrary but informed view was “fairly raised” by Holtec’s license amendment.

To allay Petitioners’ argument that all tubes, whether sleeved or unsleeved, have degraded, and will continue to degrade to such an extent that they will suffer extensive corrosion upon restart, the ASLB summoned up this gibberish from Holtec’s License Amendment Request:

Evaluation of the repaired SG [steam generator] tube by testing and analysis indicates no detrimental effects on the sleeve or sleeved tube assembly from reactor system flow, primary or secondary coolant chemistries, thermal conditions or transients, or pressure conditions as may be experienced at [Palisades].³³

In this striking Holtec admission, Holtec commenced sleeving of the steam generator tubes *without approval of the LAR by the NRC*. Holtec then insists, without support, that there is no damage from coolant chemistries and other customary facets of reactor operations, despite the otherwise-inexplicably dramatic increase in the number of tubes requiring repairs that

³² 90 Fed. Reg. 15722 (2025).

³³ ASLB’s Memorandum and Order, p. 20.

necessitated the LAR in the first place.³⁴ The only tubes from which Holtec draws its “no detrimental effects” conclusion are tubes *which were repaired precisely because they showed detrimental effects from reactor system flow, primary or secondary coolant chemistries, thermal conditions, transients or pressure conditions.*

Mr. Gundersen scored Holtec for refusing “to address the broader issue of ongoing damage to both the sleeved and unsleeved tubes due to chemical hideout if it restarted the Palisades’ steam generators.”³⁵ He clarified that Holtec’s “utter silence” “on the anticipated chemical attack on the tubesheet. . . by chemicals deposited in the tube-to-tubesheet gap” could mean failure or leakage of the tubesheet as a reactor coolant pressure boundary failure “which Holtec must evaluate before the NRC can consider any restart of Palisades.”³⁶ Mr. Gundersen stated that “Heating the steam generators will exacerbate the chemical attack on all the steam generator tubes, not just those that Holtec has already identified as needing repair,” yet Holtec omitted “discussion of the likelihood of continued chemical attack from hideout on the sleeved tube nor on those tubes that remain unsleeved.”³⁷ Mr. Gundersen pointed out that “in one statistically insignificant test of a few tubes in cold laboratory conditions [MSLB leak testing], leak rates were measured to be higher than previously recorded,” yet Holtec “suggests that since there were no gross failures, sleeving remains adequate.”³⁸ Mr. Gundersen explained that “Not only the tubes that Holtec proposes to sleeve, but all tubes inside the steam generators, will be under continuing chemical attack and will be further weakened if the NRC allows these old

³⁴ Petitioners’ Expert Gundersen observed, “More alarmingly, during its September 2024 inspection, Holtec uncovered ***at least 700 additional tubes that were newly damaged and must be plugged*** due to metal corrosion owing to its lack of preventive maintenance.# Amazingly, Holtec uncovered more new tube failures in 2024 (1,163)# than the 88 total SG tube failures at Palisades documented across 35 years of combined operation by Consumers Energy and Entergy.” Gundersen Declaration p. 16/40, para. 9.3.

³⁵ Gundersen Declaration, p. 30.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*, p. 31.

steam generators to be restarted,”³⁹ and that “[t]he MSLB tests performed by Holtec do not include any further degradation of all the tubes caused by hideout under hot operating conditions, but instead represent the cold-water condition of only the damaged tubes identified in the inspection report following the August 2024 tube inspection.”⁴⁰

The ASLB’s determination that Contention 1 is out-of-scope is flawed because before it can grant the LAR, the NRC must make certain findings required by the Atomic Energy Act of 1954, as amended (the Act), and the NRC’s regulations, specifically, that a license amendment cannot be granted if it would be “inimical to the common defense and security or to the health and safety of the public.” 42 U.S.C. § 2133(d); 10 C.F.R. § 50.40. NRC regulations for license amendments provide that license amendments are governed by the same considerations as for initial licenses, *i.e.*, the health and safety of the public. 10 C.F.R. § 50.92. The AEA standard, then, is core to the findings the NRC must make “to support the restart of Palisades.” The Board and the Commission must ensure the health and safety of the public will be accomplished by the agency’s approval. The scope of the LAR transcends the mechanical question of adding sleeves to steam generator tubes by implicating the health and safety considerations that must be addressed in order for the LAR to be permitted by the NRC. Holtec’s sleeving proposal must assure the safe operation of a restarted Palisades. And this objective cannot be fulfilled absent acknowledgment of the steam generators’ maintenance history, including the bungled oversight after the 2022 shutdown which resulted in increased stress corrosion cracking. The adequacy of maintenance of the steam generators following permanent shutdown in June 2022 is implicitly encompassed within the scope of the LAR and is therefore “fairly raised” by the LAR.

C. Replacement of the Steam Generators Is an Issue ‘Fairly Raised’ by the LAR

³⁹ *Id.*

⁴⁰ *Id.*

As previously mentioned, the steam generators at Palisades have been problematic for years. The originals were replaced in 1991 after 19 years. Then in 2006, Consumers Energy, then-owner, indicated to Michigan utility regulators a desire to sell the plant, citing among other considerations the anticipated need to replace the second-generation steam generators. And in Holtec's July 5, 2022 funding request to the Department of Energy for corporate welfare to restart Palisades, Holtec earmarked \$510 million for their possible replacement.⁴¹

But it's Holtec's major bungle that makes clear steam generator replacement is no longer optional. After Holtec acquired Palisades in 2022, the steam generators were not properly maintained to allow them to be returned to service because of not being put into wet layup, which allowed corrosive chemicals to attack and weaken the internal components.⁴² That, in turn, sets up plausible scenarios for steam generator tube failures causing release of radioactive material. Petitioners' expert Arnold Gundersen has explained that sleeving the generator tubes is likely to increase stress cracking of the tubes, increasing potential radioactive releases.⁴³

The ASLB mischaracterized the scope of the sleeving LAR proceeding when it ruled that Petitioners' contention that replacement of the steam generators instead of sleeving the tubes is beyond the scope of this proceeding. The ASLB said that the scope of the proceeding is limited to whether the process of sleeving tubes at tube support plates should be allowed as a repair option. But that conclusion ignores the fact that the scope of this proceeding is governed ultimately by the AEA mandate to protect public health and safety.

The ASLB was also wrong in ruling that Mr. Gundersen's expert opinion calling for replacement of the steam generators falls outside the scope of the LAR. At the very least,

⁴¹ *Holtec International Application for Federal and State Support to Enable the Resurrection of the Palisades Nuclear Generation Station*, submitted July 5, 2022, p. 7/42 of pdf.

⁴² Gundersen Declaration, p. 13-14, 16.

⁴³ Gundersen Declaration, p. 18-20.

Petitioners presented a factual issue within the scope of this proceeding that must be adjudicated at an evidentiary hearing. This ASLB ruling exemplifies the misapplication of the standards for contention admissibility.

D. Holtec's Failure to Place Palisades in Wet Layup

The ASLB asserted that Holtec's failure to place Palisades in wet layup for at least two years is not material to the findings the NRC must make with regard to the LAR. The Board claimed that Petitioners offered no technical reason why the efficacy of sleeving is dependent on who damaged the tubes or on when such damage happened.⁴⁴

On the contrary, Petitioners and Mr. Gundersen explained that the degraded condition of the steam generators due to Holtec's mismanagement made the use of sleeves to attempt to repair the generator tubes much more problematic.⁴⁵ Mr. Gundersen pointed out that the tube damage is due to stress corrosion cracking from chemical deposition in cold water, and that the sleeving increased stress in the tubes. The improper layup and previous degradation of the tubes has impaired the efficacy of the sleeves. Thus, the NRC must make a finding as to whether sleeving is a proper and appropriate means of addressing the question of widespread corrosion in the tubes, and pursuant to the AEA, whether sleeving protects public health and safety. That is exactly the issue to be addressed in assessing whether the LAR should be approved. The ASLB should have approved this aspect of Contention 1 for admission for hearing.

E. Chemical Hideout in the Tube-to-Tubesheet Crevasses

The Petition and Mr. Gundersen's declaration both pointed out that the LAR does not address the presence of chemical hideout in the tube-to-tubesheet crevasses, and that chemical hideout is not repaired by sleeving the tubes. The ASLB claimed that chemical hideout does not

⁴⁴ ASLB Memorandum and Order, p. 17.

⁴⁵ Gundersen Declaration, pp. 6, 13, 16, 18.

raise a genuine dispute with the LAR, because, according to the ASLB, the sleeving would be only on the tube support plates. But the Board's claim ignores the fact that the point of the LAR, as expressed in the Federal Register for the hearing, is that the proposed sleeving will satisfy the requirements of the AEA, which includes the protection of public health and safety. The ASLB took a far too restrictive view of the issues posed by the LAR.

F. Replacement of Steam Generators at Watts Bar 2

The LAR submitted by Holtec cited the experience with sleeving at the Watts Bar 2 reactor as precedent for the procedure used to justify using sleeves at Palisades. Even though the sleeves were never installed at Watts Bar, the experience at Watts Bar is relevant to show that Watts Bar was forced to replace its steam generators, even though it had approval to install sleeves, thereby supporting the Petitioners' argument that replacement of the steam generators at Palisades in their entirety is necessary.

The ASLB decision contends that the Watts Bar experience does not present a material dispute with the LAR, because, according to the ASLB, Holtec referred to Watts Bar 2 solely to demonstrate the type of information that must be submitted to the NRC for tube sleeving to be approved. But, Holtec having cited Watts Bar as precedent for the efficacy of installing sleeves, the Watts Bar experience was fair game for the Petitioners to use in asserting that the Palisades steam generators should not be sleeved and must be replaced.

This is yet another instance of the ASLB improperly constricting the scope of this proceeding and imposing an overly strict contention admissibility standard.

G. Installing Metal Sleeving In the Steam Generator Tubes Will Create Excessive Stress on the Tubes and On the Tubesheet

Contention 1, relying on Mr. Gundersen's declaration, points out that sleeving the

generator tubes will actually increase stress cracking, leading to a probable release of radioactive material. In his declaration, Mr. Gundersen explains that the tube damage is due to stress corrosion cracking from chemical deposition in cold water, and sleeving increases stress in the tube.⁴⁶ Mr. Gundersen, as shown by his CV and his experience with the steam generators at the San Onofre Nuclear Generating Station, has the knowledge and experience to express this opinion. However, to establish even more credibility for his statements, Mr. Gundersen cited a report by the Electric Power Research Institute's Steam Generator Sleeving Review Committee.⁴⁷ These facts unalterably lead to the conclusion that sleeving the generator tubes will not make Palisades fit to operate safely.

The ASLB rejected the Petitioners' Contention on this point by claiming that the contention did not raise a material dispute with the LAR. The ASLB claimed that the article regarding the EPRI report Mr. Gundersen cited was a summary of a longer report, and that the report allegedly does not support Mr. Gundersen's statements. Of course, the Board's criticism of Mr. Gundersen's reference to the article ignores Mr. Gundersen's own knowledge and experience. Further, the Board claimed that the Framatome report addressed the issue of increased stress cracking. But, as Petitioners have pointed out, the Framatome tests were conducted under laboratory conditions, not with the severely damaged steam generator tubes and components at Palisades. The ASLB was adjudicating the facts, not properly determining the admissibility of the contention.

IV. CONCLUSION

Petitioners articulated a factual contention that raised issues which must be addressed at an evidentiary hearing. At the threshold stage of the proceeding, the licensing board is limited to

⁴⁶ Gundersen Declaration, p. 18.

⁴⁷ *Id.*

ascertain whether issues of fact have been raised by the intervening party. Notwithstanding that firmly-established objective, the Atomic Safety and Licensing Board engaged, instead, in weighing evidence and rendering a merits determination, ascribing weight and credibility to deny admission of the contention. The Board abandoned the admissibility standards and converted the proceeding into a fortress to deny intervention. Petitioners respectfully request the Commission to reverse the ASLB and remand this case back for adjudication on the merits.

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CERTIFICATE OF SERVICE

Pursuant to 10 CFR § 2.305, I hereby certify that a copy of the foregoing "NOTICE OF APPEAL AND BRIEF IN SUPPORT" was deposited in the Electronic Information Exchange (NRC Filing System) in the captioned proceeding this 2nd day of September, 2025, and that according to the protocols of the EIE they were served upon all parties registered with the System.

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