UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	Docket No. 50-255 NRC–2021–0036
Entergy Nuclear Operations, Inc., Entergy Nuclear Palisades, LLC, Holtec International, and Holtec Decommissioning International, LLC	)))	March 29, 2021
(Palisades Nuclear Plant and Big Rock Point)	)	

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REPLY OF BEYOND NUCLEAR, MICHIGAN SAFE ENERGY FUTURE AND DON'T WASTE MICHIGAN IN SUPPORT OF PETITION FOR LEAVE TO INTERVENE, AND REQUEST FOR AN ADJUDICATORY HEARING

Now come Petitioners Beyond Nuclear, Michigan Safe Energy Future and Don't Waste Michigan, (BN, MSEF and DWM) (collectively, Petitioners), by and through counsel, and set forth their reply arguments to the "Applicants' Answer Opposing Beyond Nuclear *et al.*'s Petition to Intervene and Hearing Request" (Answer).

I. INTRODUCTION

The Applicants Entergy Nuclear Operations, Inc. (ENOI), Entergy Nuclear Palisades, LLC, Holtec International, and Holtec Decommissioning International, LLC (HDI) (collectively, Applicants) project the incongruent notion that the license transfers at issue are completely unconnected to significant planned changes in the management and scope of decommissioning activities which Holtec plans to implement, as postulated in Applicant's Post-Shutdown Decommissioning Activities Report (PSDAR).[1] And that, because they are unconnected, the

[1]HDI, "Post Shutdown Decommissioning Activities Report including Site-Specific Decommissioning Cost Estimate," Enclosure 1, "Palisades Nuclear Plant Post Shutdown

license transfers are innocuous paper shuffling without effect upon the actual, physical environmental consequences of the decommissioning plan. But the PSDAR, in fact, is a plan – and in many respects a new and sharply different plan from that pronounced over the years by Entergy. And these new or redirected aspects of decommissioning fall within the framework of the National Environmental Policy Act (NEPA). Applicants' trivialization initiative serves to deny the public any role in the dangerous, ever-obscure post-operational phase of a commercial nuclear power facility.

Most unpersuasive is Applicants' theme that for some purposes, the PSDAR is a real, binding, regulatorily-significant document which will wreak changes, but that at other times, it's not. This tone is apparent in the Commission's decision in the Indian Point litigation, where HDI's request for an exemption to siphon off a third of the Decommissioning Trust Fund (DTF) was held to be within the scope of the proceeding:

> We agree that HDI's exemption request is within the scope of this proceeding. HDI is seeking an exemption so that it can use trust funds for activities other than radiological decommissioning. *HDI refers to these activities in its application and PSDAR, and it provides cost estimates for these activities in its DCE. Accordingly, the exemption request is intertwined with, and constitutes an integral part of, the license transfer application;* New York's exemption-related arguments therefore fall within the scope of this proceeding.[2] (Emphasis added).

But when Petitioners raise the specter of hazardous activities included in, or inexplicably omitted from, the PSDAR that carry big price tags, the PSDAR, according to Applicants, is merely an ephemeral chimera with no concrete effects and is merely a change of ownership and

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Decommissioning Activities Report (Dec. 23, 2020) (ADAMS No. ML20358A232) (PSDAR).

[2] *Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, Holtec International, and Holtec Decommissioning International, LLC* (Indian Point Nuclear Generating Station, Units 1, 2, and 3 and ISFSI), Docket Nos. 50-003-LT-3, 50-247-LT-3, 50-286-LT-3, 72-51-LT-2, CLI-21-01 at 18 (January 15, 2021) (Slip op.).

branding of the decommissioning campaign: "NRC's approval of the Application would not extend the facility's operating license, allow substantive changes to plant operations, or authorize any additional licensed activities beyond those that may already be undertaken by the current licensees."[3]

Applicants concluded their discussion of environmental impacts as required by 10 CFR § 50.82 this way in the Palisades PSDAR:

> HDI has concluded that the environmental impacts associated with planned Palisades site-specific decommissioning activities are less than and bounded by the previously issued environmental impact statements and site-specific analysis summarized in this report. 10 CFR 50.82(a)(4)(i) requires that the PSDAR include, " ... a discussion that provides the reasons for concluding that the environmental impacts associated with site - specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements."[4]

Notwithstanding this sweeping, controversial conclusion, Applicants insist that they are allowed to conclude, based on suspect and/or incomplete evidence, discussed in Petitioners' original filing and detailed below that site-specific decommissioning activities proposed for the very first time in the PSDAR, or not mentioned at all but mandated by extra-PSDAR authorities, fall neatly within previous NEPA analyses of the Palisades Nuclear Plant. Applicants cling to the position that neither their unsupported statements within the PSDAR nor stunning omissions from it may be challenged or critiqued by the Petitioners in the instant proceeding. Anomaly, thy name is Holtec.

Once approved, *the PSDAR is a binding plan which requires formal action in order for Holtec to deviate from it.* And this PSDAR sharply departs from Entergy's decommissioning

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[3]Applicants' Answer at 6-7.
[4]PSDAR at 18.

plan in several respects. Applicants expressly assert this sharp difference in their Answer:

> As noted in the Application, the proposed transfers are intended to place licensed responsibility in an organization (HDI) that will facilitate the decommissioning of Palisades and the release of the site *on a much more accelerated schedule than if Entergy continued to hold the licenses and chose to implement a maximum SAFSTOR decommissioning scenario, deferring most radiological decommissioning until after a significantly longer dormancy period. Whatever concerns Petitioners' members may have about decommissioning activities at Palisades would still exist, and indeed, would persist for a longer period in the absence of the license transfers.*[5] (Emphasis added)

Holtec's "much more accelerated schedule" is undeniably a significant change from Entergy's plan, and so it portends unconsidered environmental, security, safety and public health implications under NEPA and the Atomic Energy Act (AEA).

The PSDAR states that Holtec expects to assume the NRC licenses "by July 1, 2022, following Palisades' permanent cessation of plant operations and permanent reactor defueling," and will simultaneously commence to draw funds under its requested exemption and start its sharply divergent (and accelerated) decommissioning activities simultaneously.[6] With the end of power generation, the PSDAR automatically becomes the overarching formal plan of decommissioning, with no further regulatory approval required.

Added proof of the binding effect of the PSDAR's taking effect simultaneously with the transfer of licenses and end of power generation lies in Applicants' assurance that, "As required

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[5]Applicants' Answer at 35.

[6]"The initiation of decommissioning activities by HDI will begin following the sale and license transfers, which are targeted to be completed by July 1, 2022, following Palisades' permanent cessation of plant operations and permanent reactor defueling. In parallel with the submittal of this PSDAR, HDI is submitting a request for NRC approval of an exemption to use Palisades Nuclear Decommissioning Trust (NDT) funds for Palisades spent fuel management and site restoration activities (Reference 18). Decommissioning is expected to be completed well before 60 years following permanent cessation of operations as required by 10 CFR 50.82(a)(3). HDI has a project goal to complete decommissioning and final license termination within approximately 20 years following sale closure and license transfers." PSDAR at 1.

by 10 CFR 50.82(a)(7), the NRC will be notified in writing, with copies sent to the State of Michigan, before performing any decommissioning activity inconsistent with, or making any significant schedule change from, those actions and schedules described in the PSDAR, including changes that significantly increase the decommissioning cost."[7] In other words, formal NRC approvals will be required to depart from the PSDAR plan, because the PSDAR is the default decommissioning commitment.

The obligatory nature of Applicants' – really, Holtec's – PSDAR, coupled with its significant new activities and departures from Entergy's plan informs the legal standing of Petitioners' members and drives the requirement of renewed NEPA scrutiny at this license transfer stage. Every nuclear power plant proposal is analyzed under NEPA while it is still on the drawing board because it is deemed to be a "major federal action." While the Commission and Applicants decline to call the redirected decommissioning of Palisades "major," the facts (many of which had to be supplied by Petitioners) speak for themselves.

II. CONTENTION 1 SHOULD BE ADMITTED FOR ADJUDICATION

A. Multiple planned decommissioning activities have evaded NEPA review at Palisades

Applicants are baffled by Petitioners' lack of discussion of the NRC's categorical exclusion for license transfers, insisting that "It is *the federal action*, and potential environmental consequences of that action, that are subject to NEPA review—not the ongoing existence of the Palisades facility or activities associated with decommissioning and storing SNF at the facility, each of which has been subject to prior environmental review, and none of which are being

[7] *Id.* at 2.

approved by the NRC in this proceeding."[8] (Emphasis in original). But as Petitioners explained in their initial filing, many of the activities associated with decommissioning and storing SNF at Palisades which are mentioned for the first time in the PSDAR, or which aren't mentioned but obviously are necessary decommissioning-related activities, have evaded prior environmental review. And they have real or potential negative environmental consequences. Thus they must, by law, be addressed under NEPA in this proceeding.

There is zero mention or discussion in the 2006 Supplemental Environmental Impact Statement (SEIS) of steam generator radioactivity or the ultimate disposition of the irradiated generators. But in the PSDAR, for the very first time, the Applicants disclose that it is likely that the generators will be transported offsite by barge, and that a boat slip will have to be constructed at Palisades for this purpose.[9]

There is no admission or discussion of a tritium problem in the PSDAR, yet as Petitioners noted in their Petition[10], in December 2007, Palisades disclosed that it was leaking tritium into groundwater, and later reported tritium in an onsite groundwater test well at 34,000 picocuries per liter. Entergy estimated that a total of 8.33 curies of tritium was leaked into groundwater with about 1% of the failed tank and piping's tritium contents leaking out. In this same period, the Palisades nuclear power station deliberately released 839 curies of radioactive tritium as liquid effluent into Lake Michigan and 341 curies of radioactive fission and activation gases at ground level. Repeatedly in recent years crews at Palisades have tried to curb leaking from a 300,000 gallon above-ground safety injection refueling water tank filled with tritiated water.

[8]Applicants' Answer at 6.
[9]PSDAR at 11, 19.
[10]Petition to Intervene at 25-26, 28.

Applicants propose to consolidate all 69 dry storage casks expected to be accumulated by the end of power generation onto one of the two concrete storage pads for the purpose, which is a new development disclosed for the first time in the PSDAR[11] and is quite rare. Applicants omitted to mention the historic evidence that the pads do not meet NRC seismic standards – facts supplied by Petitioners.[12]

There is zero mention in the PSDAR of Palisades' multifaceted spent nuclear fuel repackaging dilemma, another unidentified decommissioning activity.[13] Current U.S. Department of Energy policy requires packaging of SNF and GTCC waste into smaller uniformly-sized, multipurpose transport, aging and disposal ("TAD") canisters for purposes of geological repository disposal. Presently there is no agreement on the size nor other features of the TAD canisters to achieve the DOE's efficient disposal requirements. The fact that there is considerable high burnup fuel stored at Palisades complicates the repackaging mission, as does the length of spent nuclear fuel storage.[14] Petitioners' expert, Bob Alvarez, states that the limited repackaging of 18 Sierra Nuclear casks[15] – which do not contain high burnup fuel – "is on a scale that has yet to be undertaken in the United States. It will involve transport, opening removal and emplacement into several new canisters. It will require the continued operation of the reactor pool and all that entails, especially since dry hot cells to handle commercial SNF remain yet-to-be deployed. It appears that not a single power reactor spent nuclear fuel cask in the U.S. has

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[11]PSDAR at 22.

[12]Petition to Intervene at 29-32.

[13]Petition to Intervene at 32-37.

[14]Petition to Intervene at 39-41.

[15]This matter is not mentioned in the PSDAR, but only in Entergy 2018 letter, ADAMS No. ML18351A478 (p. 39/70 of .pdf).

been repackaged."[16] Added to these issues is the special danger of Cask No. 4, which soon after being loaded with spent nuclear fuel in 1994 was found to pose thermal challenges and possesses serious welding defects.[17]

And therein lies the fallacy of Applicants' argument that there can be no supplemental NEPA consideration in this proceeding. "*Unless the environmental impacts of particular decommissioning activities will fall outside the previously performed analysis*, the rule does not contemplate additional NEPA analysis at the PSDAR stage."[18] (Emphasis added). The operative concept is whether the "particular decommissioning activities will fall outside the previously performed analysis." Petitioners have shown repeatedly that there are risky and dangerous undertakings that are barely referenced, if at all, in the PSDAR. They cannot be deemed "bounded by appropriate previously issued environmental impact statements," as required by 10 CFR § 50.82(a)(4)(i).

An agency may rely on an already-performed, "thorough and comprehensive" NEPA analysis. *New York v. U.S. Nuclear Regulatory Comm'n (New York II)*, 824 F.3d 1012, 1019 (D.C. Cir. 2016). But no such NEPA analysis has already been performed on the multiple issues

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[16]Declaration of Robert Alvarez, Attachment B, p. 3 (3/29/2021) (Submitted with this Reply memorandum).

[17]Petition to Intervene at 37-39.

[18]*Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-16-17, 84 NRC 99, 126 (2016). The full quote is instructive:

> "In promulgating the Final Decommissioning Rule, the NRC specifically considered and rejected the idea that review of the PSDAR should be defined as a major federal action under NEPA because environmental analysis of activities to be performed under the PSDAR will necessarily have been performed in accordance with prior site-specific or generic analysis. *Unless the environmental impacts of particular decommissioning activities will fall outside the previously performed analysis, the rule does not contemplate additional NEPA analysis at the PSDAR stage.*"

Id. (Emphasis added).

Petitioners have raised. "[A]n agency is not required to make a new assessment under NEPA every time it takes a step that implements a previously studied action, *so long as the impacts of that step were contemplated and analyzed by the earlier analysis. See, e.g., Wyoming v. U.S. Dep't of Agric.,* 661 F.3d 1209, 1257-58 (10th Cir. 2011)." *Mayo v. Reynolds,* 875 F.3d 11, 21 (D.C. Cir. 2017). (Emphasis supplied). But the impacts suggested by Petitioners were neither contemplated, nor identified, nor analyzed by the earlier analysis. Applicants generally cite to several generic EIS's[19] but do not explain how the multiple site-specific environmental danger signs documented in Petitioners' first filing are addressed or bounded by those documents.

Under NEPA, NRC is obligated to undertake a supplemental EIS when presented with "substantial changes in the proposed action that are relevant to environmental concerns" or "new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" after the EIS is assembled. 10 C.F.R. § 51.92(a)(1)-(2); *see also id.* § 51.72(a)(1)-(2). "New and significant" information presents "a seriously different picture of the environmental impact of the proposed project from what was previously envisioned." *Hydro Res., Inc.*, 50 N.R.C. 3, 14 (1999). *Blue Ridge Environmental Defense League v. Nuclear Regulatory Com'n*, 716 F.3d 183, 197 (D.C. Cir. 2013). Petitioners' critiques of the PSDAR articulate "substantial changes in the proposed action that are relevant to environmental concerns" as well as "new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." They have produced evidence that NEPA must be applied at this stage because the PSDAR plan will go into effect simultaneously with NRC approval of the ownership change. Petitioners have enumerated

[19] Answer at 10, fn. 44.

evidence that warrants admissibility of Contention 1.

Applicants' conclusion that "the environmental impacts associated with planned Palisades site-specific decommissioning activities are less than and bounded by the previously issued environmental impact statements and site-specific analysis summarized in"[20] the PSDAR remains false; Petitioners have raised one or more issues of fact with the application, necessitating a trial.

B. The presumption of 'categorical exclusion' is rebutted by Petitioners

The Applicants accuse Petitioners of raising an "impermissible challenge to NRC's categorical exclusion applicable to license transfers."[21] They claim "[t]he NRC has determined that license transfers do not trigger the need to prepare an environmental assessment or environmental impact statement, except in the case of special circumstances as found by the Commission."[22] As justification, Applicants assert that the NRC made this determination based on the fact that the transfer itself does not permit a licensee to operate a facility any differently than what has been permitted under an existing license and, therefore, will not raise environmental issues that differ from those considered in prior NEPA analyses.[23]

But even the Applicants concede there is a "special circumstances" exception to the 1998 rule treating license transfers as categorical exclusions.[24] In its rationale for the Streamlined promulgation, the Commission acknowledged that "In general, license transfers do not involve

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[20]PSDAR at 18.
[21]Answer at 3.
[22]Answer at 5.
[23]*Id.*
[24]"Streamlined Hearing Process for NRC Approval of License Transfers," Final Rule, 63 Fed. Reg. 66721 (December 3, 1998) (Streamlined).

any technical changes to plant operations."[25] The Council on Environmental Quality's (CEQ) NEPA regulations echo the core principle[26] here, which is that designation of an activity as a "categorical exclusion" represents the invocation of a rebuttable presumption, which then may be rebutted by a showing of special circumstances.

The Commission is the entity that determines what the "special circumstances" that rebut the presumption of categorical exclusion might be,[27] but those determinations are informed by the CEQ's NEPA regulations. NRC regulations define "special circumstances" to "include the circumstance where the proposed action involves unresolved conflicts concerning alternative uses of available resources within the meaning of section 102(2)(E) of NEPA." But CEQ's NEPA regulations allow imposition of the exclusion only when the agency can *mitigate the environmental harm*; otherwise an Environmental Assessment or Environmental Impact Statement must be written. According to 40 CFR § 1504.4(b), if an agency determines that a categorical exclusion identified in its agency NEPA procedures covers a proposed action, the agency shall evaluate the action for extraordinary circumstances in which a normally excluded action may have a significant effect, and:

> (1) If an extraordinary circumstance is present, the agency nevertheless may categorically exclude the proposed action *if the agency determines that there are circumstances that lessen the impacts or other conditions sufficient to avoid significant effects.* (Emphasis supplied).
>
> (2) If the agency cannot categorically exclude the proposed action, the agency shall prepare an environmental assessment or environmental impact statement, as appropriate.

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[25] *Id.*

[26] 40 CFR §1508.1(d) defines "categorical exclusion" as "a category of actions that the agency has determined, in its agency NEPA procedures (§1507.3 of this chapter), normally do not have a significant effect on the human environment."

[27] 10 CFR § 51.22(b).

In *Pa'ina Hawaii, LLC*, an Atomic Safety and Licensing Board admitted a contention based on the argument that NEPA analysis requires an explanation of the applicability of a categorical exclusion where a petitioner has alleged special circumstances necessitating an environmental review. There, the NRC Staff and applicant neither explained the applicability of the categorical exclusion in the specified circumstances nor provided a basis to conclude that the alleged circumstances were actually considered as part of the adoption of the categorical exclusion,[28] and the contention was admitted to the proceeding. The ASLB held that "An agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged."[29]

The thrust of the Petitioner's contention, however, is that the agency cannot invoke the categorical exclusion until it addresses Petitioners' assertions of special circumstances making the exclusion inapplicable here. This is a point the Applicants completely ignore. In the regulatory history of the "special circumstances" exception to the categorical exclusions in 10 C.F.R. § 51.22(b), the Commission made clear "that it intended the term to be flexible, stating that '[a] major purpose of proposed section 51.22(b) is to preserve this necessary flexibility. In addition, it is impossible to identify in advance the precise situations which might move the Commission in the future to determine special circumstances exist. Therefore, the term 'special circumstances' has not been further defined.'"[30]

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[28] *Pa'ina Hawaii, LLC*, LBP-06-4, 63 NRC 99, 108-112 & 108 n.36 (2006) (citing *Alaska Center for the Environment v. U.S. Forest Service*, 189 F.3d 851, 859 (9th Cir. 1999); *Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986); *Steamboaters v. Fed. Energy Reg. Comm'n*, 759 F.2d 1382 (9th Cir. 1985); *Wilderness Watch & Public Employees for Env. Responsibility v. Mainella*, 375 F.3d 1085, 1096.

[29] *Pa'ina Hawaii, LLC*, LBP-06-4, 63 NRC 99, 108-112 & 108 n.36 (2006)

[30] 49 Fed. Reg. 9352, 9366 (Mar. 12, 1984), quoted in *Pa'ina Hawaii* at 110.

In the Federal Register notice of the instant proceeding,[31] the NRC Staff literally did not use the words "categorical exclusion," so Petitioners concluded the Staff has not yet developed a reasoned explanation of the applicability of the categorical exclusion. There is no basis showing that the myriad circumstances of environmental threats and harms mentioned by Petitioners have been actually considered in the license transfer decision.

The Federal Register notice also states that the Commission has not yet taken up the question of whether the generic findings in the Streamlined regulations are being applied here to foreclose consideration of significant hazards:

> As provided in 10 CFR 2.1315, unless otherwise determined by the Commission with regard to a specific application, the Commission has determined that any amendment to the license of a utilization facility or to the license of an ISFSI, which does no more than conform the license to reflect the transfer action, involves no significant hazards consideration and no genuine issue as to whether the health and safety of the public will be significantly affected. No contrary determination has been made with respect to this specific license amendment application.[32]

Contrary to the arguments of Applicants, the § 51.22 categorical exclusion may be invoked only by the NRC, not Applicants. Until that has formally occurred, Contention 1 should be admitted for trial.

III. CONTENTION 2 SHOULD BE ADMITTED FOR ADJUDICATION

Petitioners stand by their original statements of evidence and legal authorities set forth at pp. 41-44 of their Petition to Intervene.

IV. CONTENTION 3 SHOULD BE ADMITTED FOR ADJUDICATION

Applicants maintain that "Licensees may demonstrate decommissioning funding

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[31]"Palisades Nuclear Plant and Big Rock Point Plant Consideration of Approval of Transfer of Control of Licenses and Conforming Amendments," 86 Fed. Reg. 8225 (February 4, 2021).

[32]86 Fed. Reg. 8226.

assurance based on 'plausible assumptions and forecasts, even though the possibility is not insignificant that things will turn out less favorably than expected'"[33] Accordingly, according to the Applicants, Petitioners supposedly must show that Applicants' cost estimates are based on *implausible* assumptions and forecasts, which a petitioner does not do simply by providing a general estimate that may be higher or identifying costs or scenarios that might happen in the future.

Petitioners have a couple of responses to Applicants' asserverations. First, the "less favorably" standard has little meaning, since any possible validity to a petitioner's contention is drowned in the ocean of "less favorable possibilities." Petitioners have identified gaping failures that expose the vapidity of Holtec's PSDAR: about the utterly unmentioned repackaging of irradiated fuel; the completely unmentioned, particularly dangerous repackaging of Cask No. 4; of the globally-unprecedented repackaging of that cask and 17 other VSC-24's on site; of the Applicant's never-previously-mentioned acknowledgment that irradiated fuel and irradiated steam generators will be piloted on Lake Michigan, and that a deepwater port requiring Corps of Engineers permission to haul it all must be constructed; the removal of dozens of DSCs from the older, defective storage pad to the newer, defective one. None of these unaddressed and under-addressed aspects of decommissioning are "plausibly" assumed or forecast by the Applicants. Shouldn't that make their computations extraordinarily incompetent and suspect? These problems are almost completely unmentioned in Applicants' application – perhaps amounting to implausibility *per se*. They have been established solely via Petitioners' evidentiary production

[33] *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Station, Units 1, 2, and 3 and ISFSI), CLI-21-01, 92 NRC __ (2021) (slip op. at 30).

and expert declaration. Still, to the Applicants, Petitioners' objections may all be consigned to the black hole of the "possibility . . . that things will turn out less favorably than expected.'" Clearly, the rule has been ravaged by the exception. Holtec implausibility is the rule.

Second, Applicants are none too subtly trying to turn this initial pleading stage into a substitute trial on the merits, attempting to persuade the ASLB to dispatch Petitioners' filing without a trial, because of supposed content weakness.

In pleading for the admission of a contention, an intervenor is not required to prove the contention, but must only allege some credible foundation for it. *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-880, 26 NRC 449, 457 (1987), remanded, *Sierra Club v. NRC*, 862 F.2d 222 (9th Cir. 1988); *Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), LBP-01-21, 54 NRC 33, 47-48 (2001). Intervenors are not obliged to prove their case, or to provide an exhaustive list of possible bases, but simply to provide sufficient alleged factual or legal bases to support the contention at the outset. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 623 (2004). The AEA does not require a petitioner to support its claims in "formal evidentiary form," or provide support "as strong as that necessary to withstand a summary disposition motion." *Gulf States Utilities Co.,* 40 N.R.C. 43, 51 (1994). It requires only "a minimal showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate." *Id.* (internal citations omitted). Because at its essence, an acceptable contention need only be specific and have a basis, the standard for admitting a contention is not meant to be equivalent to the standard of evidence at a trial on the merits; the truth or falsity of the contention is reserved for adjudication. *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), ALAB-722, 17 NRC

546, 551 n. 5 (1983).

While not waiving the foregoing objection, Petitioners have tendered for the record a second Declaration of Robert Alvarez to rebut attacks Applicants have made to Mr. Alvarez' underlying evidentiary basis and his expert conclusions respecting the costs of repackaging spent fuel and in particular, the costs of repackaging the SNF in the 18 Sierra dry storage casks.

To Applicants' retort that Mr. Alvarez concluded that repackaging will cost between $40,000 and $87,000 per assembly without any per-assembly cost data,[34] he provides the citation to Nuclear Waste Technical Review Board per-assembly cost data he used.[35]

When Applicants criticize that Mr. Alvarez misrepresented minimal cooling times needed prior to emplacement of high burnup SNF into a dry cask,[36] he directs them to Sandia National Laboratory analysis that "Full loadings of high burnup fuels in very large casks may require decades of aging in pools," and depending on storage medium, up to 300 years.[37] Palisades is using very large casks. He provides a chart to support his point that "cooling times for high burnup SNF that is preferentially loaded into MPC (Multi-Purpose Canister) casks can be far greater than 5 years."[38]

Respecting Applicants' sparsely-described intention in the PSDAR that during decommissioning Holtec will undertake the repackaging of 18 Sierra Nuclear casks,[39] which do not contain high burnup fuel, Mr. Alvarez points out that such a project "is on a scale that has yet

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[34]Answer at 20.

[35]Declaration of Robert Alvarez, Exh. B p. 1 (March 29, 2021).

[36]Answer at 24.

[37]Alvarez, Exh. B pp. 1-2.

[38]*Id.* at 2.

[39]This matter is not mentioned in the PSDAR, but only in Entergy 2018 letter, ADAMS No. ML18351A478 (p. 39/70 of .pdf).

to be undertaken in the United States. It will involve transport, opening removal and emplacement into several new canisters. It will require the continued operation of the reactor pool and all that entails, especially since dry hot cells to handle commercial SNF remain yet-to-be deployed. It appears that not a single power reactor spent nuclear fuel cask in the U.S. has been repackaged."[40] There is also, of course, special danger accompanying the unloading of Cask No. 4, which soon after being loaded with spent nuclear fuel in 1994 was found to pose thermal challenges and possesses serious welding defects.[41]

Commissioner Hanson dissented in CLI-21-01 to the agency's indifference to intervenor contentions concerning current funding and contamination problems in license transfer cases:

> While I appreciate that our regulations provide a holistic framework to assure that licensees have, and maintain, sufficient funding for decommissioning activities, the agency's reliance on future obligations to dismiss well-supported concerns at the license transfer stage undercuts the purpose of our regulatory structure and fails to provide accountability to the public.
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> While I recognize that a full site characterization is not required at this stage in the proceeding, and I do not suggest that the Applicants need to perform one at this time, I find that New York and Local Petitioners raise a factual dispute sufficient to support a hearing on the issue of existing contamination. 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. Therefore, I would admit New York's Contention 2 and Local Petitioners' Contention 1 on this basis.[42]

Also, Commissioner Baran dissented in CLI-21-01: "NRC's current regulations do not require HDI to perform a full site characterization at this stage of the decommissioning process.

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[40]Declaration of Robert Alvarez, Attachment B, p. 3 (3/29/2021) (Submitted with this Reply memorandum).

[41]Petition to Intervene at 37-39.

[42]*Entergy Nuclear Operations, Inc., et al.*, CLI-21-01 at 87-88.

But that does not bar New York and the Local Petitioners from taking issue with the level of detail in HDI's cost estimates."[43]

The Commission may be on the verge of reconsidering the artificial constraints that prevent public intervenors from challenging frontally the implausible and implausibly insulated charades of decommissioning trust fund raids and the effects of such poor NRC on the quality of future decisions being made at a growing number of sites.

V. PETITIONERS HAVE COGNIZABLE LEGAL STANDING

Applicants insist that Petitioners have not demonstrated either proximity-based or traditional standing of their members. Petitioners submitted multiple declarations from members living two miles or less from Palisades, so geographic proximity is indisputable. All members detailed concerns that the plant and associated facilities onsite will not be safely dismantled, moved or decommissioned, nor will irradiated fuel be safely stored, handled or repackaged.

Petitioners acknowledge that they must show that the kind of action at issue, when considered in light of the hazardous radioactive sources at the plant, justifies a presumption that the licensing action "could plausibly lead to the offsite release of radioactive fission products from . . . the . . . reactors."[44] Notably, in license transfer cases where the Commission has granted proximity standing, the petitioners lived from 1 to 6.5 miles from the plants at issue, and each of those cases involved the transfer of both a 100% ownership interest in the plant and the operating authority for the plant — which, the Commission observed, is "a kind of transfer implicating

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[43] *Entergy Nuclear Operations, Inc., et al.*, CLI-21-01 at 87-88.

[44] *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116-117 (1995).

more significant safety issues. . . ."[45]

In *Oyster Creek*, the Commission found that the petitioner had demonstrated proximity standing from 1 to 2 miles from the nuclear plant in circumstances sounding remarkably like Palisades:

> The Commission has found sufficient for purposes of standing a claim of insufficient funds to ensure safe operation and shutdown, posing a threat of radiological harm to a co-owner's interest in a facility, as a result of thin capitalization, inability to fund operations because of potential litigation liability, and financial insulation of shareholders from potential costs. *See Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 48 (1994). In *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25 (1993), the Commission found standing where the petitioner established regular residence near the facility and asserted that he could suffer an increased risk of radiological injury from the transfer of responsibility for safe operations of the facility to a corporate management alleged to be lax on safety because of violations of agency regulations and submissions of false information to the NRC. In the instant case, Petitioner has provided sufficient information to meet the minimum standing requirements under these prior Commission holdings. It alleges that the transfer will threaten the health and safety of individuals living within 1 to 2 miles of the plant, and that the transferee is inexperienced, inadequately funded, and, like its corporate affiliate, will lower staffing levels and deliberately cut corners in safety, causing degraded operations which could affect those living nearby. This suffices for standing.[46]

In *Vermont Yankee*, the Commission granted organizational standing to Citizen Action Network on behalf of a member who lived 6.5 miles from the nuclear power plant and alleged in her standing affidavit that she "may incur radiation dangers if, as a result of the transfer, the plant operates unsafely."[47] And in *Fitzpatrick and Indian Point 3*, Citizen Action Network alleged potential health-and-safety impacts on its members living 5.5 miles away if the Commission

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[45] *Exelon Generation Company, LLC and PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 583 (2005).

[46] *GPU Nuclear, Inc., Jersey Central Power & Light Company, and Ameren Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 194 (2000).

[47] *Vermont Yankee Nuclear Power Corporation and Amergen Vermont, LLC* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 163 fn. 3 (2000).

were to approve the two license transfers, and asserted that the safety-related issues fall within their members' zone of interests protected by the AEA and NEPA.[48]

The Commission seriously considers the transfers of 100% ownership and operating authority to carry serious implications for prospective plant safety, and thus a ground for individual standing. The Petitioners' members, especially those living less than 5 miles from Palisades, have made a showing of their qualifications for a finding of standing, as a consequence of which each of the three organizational petitioners should be accorded standing on their behalves.

WHEREFORE, Petitioners pray the Commission grant them admission as intervenors in this proceeding and that their contentions be admitted for adjudication.

March 29, 2021

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CERTIFICATE OF SERVICE

I hereby certify that on March 29, 2021, I deposited the foregoing Reply in Support of Petition for Leave to Intervene in the NRC's electronic docket of this proceeding and that according to the protocols of that system, it was to be automatically transmitted to all parties of

[48] *Power Authority of the State of New York and Entergy Nuclear Fitzpatrick LLC, Entergy Nuclear Indian Point 3 LLC and Entergy Nuclear Operations, Inc.* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 293 (2000).

record registered to receive electronic service.

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